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[THE]

GENESEE FARMER:

A MONTHLY JOURNAL DEVOTED TO

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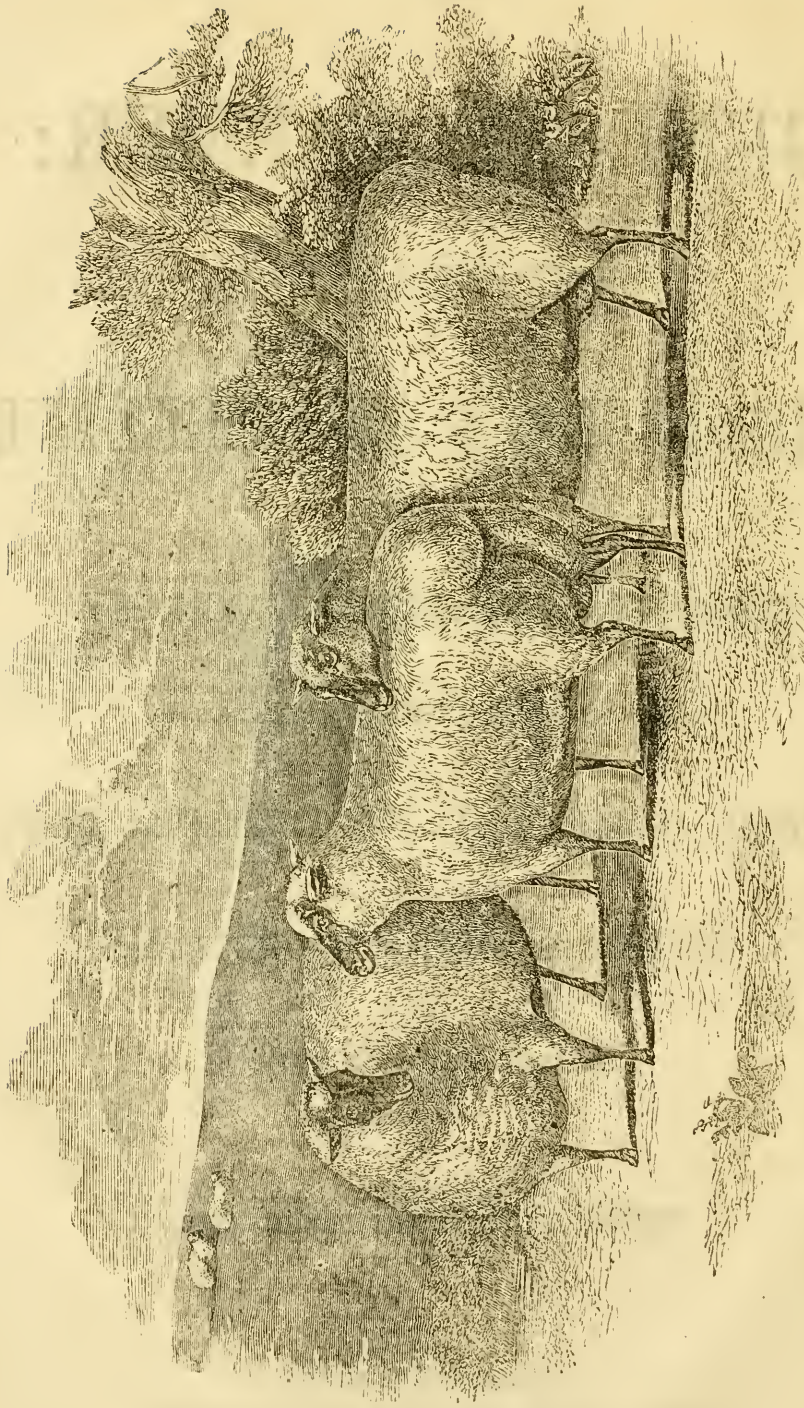
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EXPERIMENTS ON GRASS LAND.

DURING the past year we made some experiments with artificial manures as a top-dressing for grass land, the results of which may not prove wholly uninteresting to the readers of the *Genesee Farmer*.

The ground selected for the experiments was a timothy meadow, six years from seeding. The land had never been manured. The manures were sown broadcast, May 9th, 1861. The hay from the various plots was accurately weighed, and the following are the results:

Plot.	Kind of fertilizer.	Pounds per acre.	Hay cut per acre—lbs.
No. 1.	No manure.....		2,330
2.	Superphosphate of Lime,....	400	2,800
3.	Plaster,.....	250	2,500
4.	Salt,.....	150	2,960
5.	Unleached Ashes,.....	800	3,620
6.	{ Unleached Ashes,..... 800 }		4,630
	{ Superphosphate of Lime,.... 400 }		
7.	{ Unleached Ashes,..... 800 }		3,700
	{ Plaster of Paris,..... 250 }		
8.	No manure,.....		3,330
9.	Sulphate of Ammonia,.....	400	4,560
10.	{ Sulphate of Ammonia,.... 400 }		5,080
	{ Superphosphate of Lime,.... 400 }		
11.	{ Sulphate of Ammonia,.... 400 }		5,560
	{ Superphosphate of Lime,.... 400 }		
	{ Unleached Ashes,..... 800 }		
12.	No manure,.....		2,600

Between plots No. 5 and 6 there was an open drain, and we skipped a hundred yards or so on each side of the drain, from fear that there might be some difference in the quality of the soil. In view of this fact, the most likely way to get at the real significance of the results will be to compare plots No. 2, 3, 4, and 5, with the "no manure" plot No. 1; and plots No. 6 and 7 with the "no manure" plot No. 8; and plots No. 9, 10 and 11, with "no manure" plot No. 12.

Knowing from previous experience that in making such experiments it is not easy to get land of even quality, we left three plots without manure of any kind, in order, as much as possible, to guard against errors from this source. The results show how necessary is such a precaution. Thus the three plots without manure of any kind gave the following results:

No. 1,.....	2,330
No. 8,.....	3,330
No. 12,.....	2,600

Such inequality in land that appeared to the eye to be ordinarily even, and which had been previously subjected to the same treatment, is very remarkable, and shows how careful we should be in drawing conclusions from the results obtained from a single year's experiment.

We put the results on record, however, and shall not attempt to draw many conclusions from them, intending to repeat the experiments next season.

One result, however, is very marked. It was quite manifest during the whole season, and there can be no doubt in regard to it: *The plots that were dressed with ammonia gave a very much greater quantity of produce than any others.*

In two or three weeks after the manures were sown, the effect of the ammonia was distinctly seen in the much darker color of the grass, and by the middle of June the outside line of plot No. 11 rose up like a wall between it and the "no manure" plot No. 12. It could be distinctly seen from the road, thirty or forty rods distant. A farmer who saw it at this time remarked that "he had never seen grass before."

There is one fact that we must not forget to mention. The superphosphate and ashes on plot No. 6, brought in a large quantity of red clover. The effect in this particular was very marked. On plot No. 7, with ashes and plaster, there was also a little clover, but not one-tenth as much as from the superphosphate and ashes. In Mr. LAWES' grass experiments in the old park at Rothamstead, the same result was obtained. The plots which received alkalies and phosphates produced hay containing much clover and other leguminous grasses, while those dressed with ammonia produced hay composed almost entirely of grasses proper (such as timothy, etc.). These results on grass land that had not been plowed for centuries, are very remarkable, and Mr. LAWES concludes from:

these and other experiments that clover needs more phosphates and alkalies (potash and soda) in the soil than are needed by the grasses. This has been clearly proved to be the case in regard to wheat, which is botanically a grass, and is probably true of barley, oats and rye, as well as of timothy and other grasses.

The one distinct result of these experiments, is that the manures which have the greatest effect on grass land must be rich in ammonia. The way to get such manure, is not to buy sulphate of ammonia, but to feed out to the animals on the farm plenty of clover hay, peas, oilcake, etc. This will give a manure rich in ammonia, as well as in phosphates, potash, soda, and all other ingredients of plant-food. Such manure will be good on grass land, good for corn, good for wheat—good, in fact, for every crop that is grown on the farm.

As to the economy of using ashes, plaster, salt, superphosphate, and other mineral manures on grass land, each reader must judge for himself. Our own opinion is that such manures are better for leguminous plants, such as clover, beans and peas, than for the *cerealia*, wheat, barley, oats, rye, timothy, etc.

SOLUBLE FOOD FOR STOCK.

THE *Journal of the Royal Agricultural Society* contains an article showing the advantages of supplying animals with water in which meal has been dissolved. The writer says: "Knowing well the advantage of giving a jaded horse a drink of meal and water, I concluded it would answer equally well to keep my water-trough in the farmyard continually supplied with any kind of meal that happened to be in readiness—such as rape and linseed cakes in powder, ground beans, barley, etc. Water is a powerful solvent, and the nutritious properties contained in the meal must necessarily be found in a state of solution, and available for the stock of all kinds drinking at the trough."

The method employed to provide the stock with the meal and water is shown in the accompanying diagram.

No. 1 is the water-trough nearest the pump, into which the meal should be first received; it should always stand half full of water.

No. 2. Farm-yard trough, containing the meal and water, at which young and old stock drink daily.

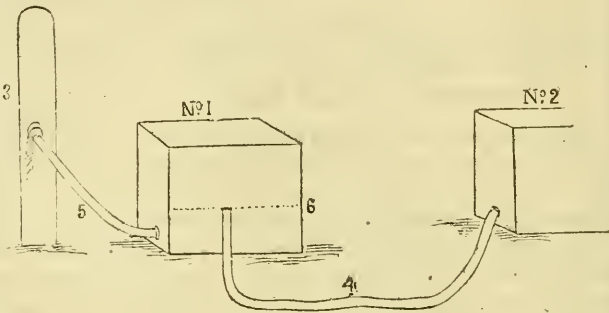
No. 3. Pump.

No. 4. Lead pipe, conveying the mixture to farmyard trough.

No. 5. Pump water-pipe flowing rapidly into No. 1, and disturbing the mixture.

No. 6. Water level in No. 1 trough.

It is important the troughs should be a good size—the larger the better—and fully three feet deep;



but this must depend on the quantity of water required. The trough (No. 2) should be placed a few inches higher than No. 1, to prevent the person pumping from letting the mixture run over and causing waste. The pipe (No. 4) should not be less than $1\frac{1}{2}$ -inch bore, and protected from frost.

This plan of preparing soluble food for stock is attended with the additional labor only of putting the meal into No. 1. All the rest is self acting, the water being set in motion by its own gravity. Some experience is necessary to determine the quantity of meal used; perhaps half a pound per head per day would be a fair allowance.

CHURNING IN WINTER.—You can not get butter out of milk, if there is none in it. Feed the cows well, and thus secure good milk, and there is not much trouble in churning even in winter. Keep the cream in a warm room till it turns somewhat sour. Let the churn be scalded before putting in the cream, so that it will be well heated through and not cool the cream. Let the cream be at a temperature of 65 to 70°, and there will not be much difficulty in making the butter come. We see it stated that if a little rennet is added to the cream just before churning, it will help materially. We think this quite likely, as it would help to generate lactic acid. But do not put in too much.

PROFITS OF BEES.—S. N. GRANT, of Iowa, says he is satisfied that, with proper care, a swarm of bees will yield as much profit as a cow. They provide their own food, and come home at night, and are little or no trouble.

A FEW WORDS ON POULTRY.

ON opening the last number of the *Quarterly Journal of Agriculture and the Transactions of the Highland and Agricultural Society of Scotland*, one of the ablest agricultural periodicals of Great Britain, we were considerably surprised to find the leading article devoted to POULTRY!

The farmers of England have looked upon poultry raising as rather a small business. There are plenty of amateur chicken fanciers, and nowhere have game-cocks received more attention. But as a branch of rural industry, as a remunerative pursuit furnishing wholesome food for the people, poultry, as a species of live stock appropriately connected with farm management, has hitherto as a general rule been neglected. STEVENS, in his unrivalled *Book of the Farm*, speaks of this neglect in terms of censure. "The supposition," he says, "that any farmer should devote a part of his time to

the consideration of poultry, is regarded by him as an unpardonable affront on his manhood. Women only, in his estimation, are fit for such a charge—and doubtless they are, and would do it well too, were they not begrudged of every particle of good food they may bestow on poultry."

We do not think American farmers are quite as bad as this, but still poultry does not receive as much care and attention as might be profitably bestowed upon them.

There is such a thing, however, as keeping too much poultry. They do not thrive when kept together in too large numbers. The most profitable way is to keep only as many as can obtain a good portion of their food from worms, insects and the waste of the house, stables and barnyard. They will need additional food at some seasons, but the main supply should be derived from sources that would otherwise run to waste.

The chicken fever of 1851-5, though ridiculous enough in some of its phases, had nevertheless the

effect of inducing a more general attention to the raising and management of poultry. The rage for pig chickens has subsided. We hear little of the wonderful feats of roosters that can eat corn off the top of a flour barrel without stretching their necks; but nevertheless the influence of the large Asiatic breeds is still felt—and felt, we think, on the whole for good. They have improved the size, if not the quality, of our common fowls, and given us better layers and larger eggs. There is still room, however,

for the improvement of our stock of fowls by the introduction of new breeds and by the judicious crossing of the old. The rapidity with which fowls multiply soon enables the breeder to correct any defects that may appear in his stock, and a few years attention to the subject would enable anyone to change his coarse, large-boned, profitless fowls into a race possessed of every desirable feature of form and quality.

M. LAVERGNE, an able French writer,

and author of a work on the "Rural Economy of England, Scotland and Ireland," after admitting that England is far ahead of France in nearly every department of agriculture, says: "But France retaliates in another branch of animal products, which is hardly reckoned in England, but is very considerable with us—that of the poultry-yard. We have long done for our poultry what the English are now doing for their cattle, sheep and pigs. We have developed them with respect to precocious fattening, and general tenderness; we have added to their fineness, whiteness and exquisite flavor."

The dryer climate of France, as compared with England, is one reason assigned by M. LAVERGNE of the superiority of the French poultry, and for the same reason we ought to excel in this country, as our climate is even less humid than that of France. The *Journal of Agriculture* demurs to the opinion of LAVERGNE, and thinks that want of care and skill in breeding, rather than humidity of



CREVECEUR COCK.

climate is the reason why English poultry has not attained the excellence of the French. Though originating in Asia, fowls have accompanied man

logne to determine which breed produces the most eggs, the Houdans stood third. (See *Genesee Farmer* for November, 1861, p. 231.) The eggs are beautifully white and of considerable size. Like all breeds that lay long and plentifully, the hens are not very good sitters. The chickens are more easily reared than any other French breed, and are less inclined to wander and pilfer than most others.



HOUDAN COCK.

into all quarters of the globe, and they have a plasticity of constitution which soon enables them to adapt themselves to the most varied circumstances. In Holland,

The water-land of Dutchmen and of ditches—a country which it is difficult to determine whether it belongs to earth or ocean, fowls succeed admirably when properly treated, and yet the atmosphere has been described as consisting of aqueous vapor, tobacco smoke, and an odor of gin. Although it is true that fowls are raised in great perfection in such a climate, it does not follow, however, that a dryer atmosphere like that of France and America is not more suitable.

One of the most popular breeds of fowls in France is the *Houdan*. It is reared and fattened on the farms around Mantes, and immense quantities are sent to Paris. We annex a portrait of a Houdan cock. This breed is somewhat above the ordinary size, with a round body, well developed and set on short legs; plumage sprinkled with black and white feathers. Like the Dorkings, they have five toes. Among the recommendations of this breed are the lightness of their bones and the fineness and bulk of their flesh. They are besides admirable layers. In the trials recently made in the Zoölogical Gardens of the Bois de Bou-

and more readily takes on fat. The pullets are of extraordinary precocity, since they may be put up



LA FLECHE COCK.

to fatten at the age of two and a half or three months, and they are ready for the table fifteen

days after. At five months a fowl of this race has reached its full perfection both as to weight and quality. A poularde—that is, a pullet deprived of the power of reproduction—of five or six months attains the weight of $6\frac{1}{2}$ lbs; a pullet of six months, fattened, weighs from 7 to $8\frac{1}{2}$ lbs. It is this race that produces the fine poulardes and pullets sold in the markets of Paris. Those of the Houdan race, although of a superior quality, only come after them. The Crève-cœur is the first race in France for delicacy of flesh, ease of fattening, and precocity, and I believe that it is the first in the world in these respects. It is one of the best also for crossing; all experiments go to prove that when crossed with the pure Cochin China, or with the progeny of a pure Crève-cœur and a pure Cochin China, they produce a hardy race, of large size and very delicate taste.

The hen produces large eggs, and is an excellent layer: in the comparative trials lately made in the Zoological Gardens, she was second in this respect. But she scarcely ever sits, and the eggs must therefore be hatched by other fowls. In many parts of France, turkey hens are made use of for this purpose, as they can be taught to sit almost at any time."

The only other French breed to which we have space to allude, and that very briefly, is that of *La Flèche*. In an erect position, the cock is much the tallest of all the French races, the body appearing smaller than it really is, owing to the feathers lying close to the skin. The plumage is entirely black, with the occasional exception of some of the short feathers of the head and neck being white, and the long feathers of the wings and tail being tinged with green and violet reflections. The head and wattles somewhat resemble the Spanish. They fatten very readily, and the flesh is of the best quality. Eggs good and of remarkable size. As a layer, *La Flèche* stood fourth in the experimental trial, the Dorking coming next. The Nankin and and Brahma Pootras, it will be recollected, stood first in this trial as the most prolific layers.

HOW MUCH WHEAT DO WE EAT?—We do not recollect seeing any satisfactory answer to this question. In England it is estimated that each person, on an average, requires *six bushels* of wheat per annum. In this country, especially in some sections, Indian corn enters so largely into the consumption that it is more than probable that a much less quantity of wheat per head is consumed here. Again, as a rule, more meat is consumed here than in England. Taking these things into consideration, it is probable that five bushels would be a liberal estimate.

ARE HONEY BEES DOMESTIC ANIMALS?

THIS question has recently been tried in Germany. An action of trespass was brought, and the question at issue proved to be whether honey bees are to be ranged in the class of what the law calls "domestic animals," or are to be considered as "wild and ferocious." A labor named Sauvenet, of Chenerailles, proceeded on the 8th of October, 1859, to extract the honey from a bee hive in the garden of his employer, a tax-gatherer, named BERAUD. This irritated the bees, and they flew wildly about. At that moment a farmer named LEGRAND, of Periopolles, accompanied by his son, a boy of thirteen, came up the road in a gig, and the bees stung them and the horse severely. The animal in terror began prancing furiously, and the farmer and his son jumped out of the vehicle; the boy then ran along the road trying to avoid the bees, but the horse, having started off, knocked him down, and so injured him that he died in a few hours. LEGRAND afterward brought an action before the Civil Tribunal of Aubusson against BERAUD and SAUVENET, to obtain from them 3,000 francs as indemnity for the death of his son, which he said must be considered as caused by the bees. But the Tribunal held that bees are "ferocious animals" which no one can be expected to control, and that therefore the action could not be maintained. An appeal was presented to the Imperial Court at Limoges, and after long arguments a contrary decision was come to, the Court laying down that bees are "domestic animals," and that the owner of them is responsible for any injury they commit; it therefore ordered that 200 francs should be paid to the plaintiff.

WHY CATTLE CHEW BONES.—This question is again raised by some of our contemporaries. The general impression seems to be that it is because the soil lacks phosphates, and the plants which grow on it are deficient in this bone-producing material. We do not believe that a plant of clover grown on a soil deficient in phosphates would contain any less of this substance than those grown on richer land. If the soil contained *no* phosphates the plants would not grow at all. If it was *deficient* in phosphates the growth of the plants would be small. If a farmer has plenty of *good* hay he may be sure it contains all the requisite elements. This, however, may be true: A soil deficient in (not destitute of) phosphates would produce an inferior kind of grass, not containing sufficient phosphates, and animals fed on it may have a desire to eat bones to supply the natural craving for this ingredient of all nutritious food.

SPIRIT OF THE AGRICULTURAL PRESS.

HOW TO CURE KICKING HORSES AND RUNAWAYS.—The Boston *Herald* says: "If you have a horse that has a habit, when in harness, of bringing his heels in contact with the dasher and damaging his vehicle by kicking, proceed as follows: Place around his neck a band like that used for the riding martingale. Then take two light straps, buckle them to the bit on either side, pass them through the neck band and then inside the girth, and strap them securely to each fetlock of the hind feet, taking care to have them of the proper length. When a horse is rigged in this manner, if he attempts to "kick up behind," each effort will jerk his head down in such way as to astonish him, and perhaps throw him over his head. He will make but a few attempts to kick when he will find his cure thus tied to his heels, and two or three lessons will cure him altogether. The method of reforming a runaway is equally simple and effectual. First of all, fasten some thick pads upon your horses' knees, then buckle a strap about the size of a rein upon each fetlock forward, and pass the straps through the hame rings on some part of the harness near the shoulder on each side, and lead the straps back to the driver's hand as he sits in the buggy. He has thus four reins in hand. Start the animal without fear; don't worry him with a strong pull upon the bit, but talk to him friendly. When he attempts to run he must of course bend his forward legs. Now pull sharply one of the reins, and the effect will be to raise one of his forward feet to his shoulder. He is a three-legged horse now, and when he has gone on in that way a little distance drop the constrained foot and jerk up the other. He can't run faster on three legs than you can ride, and when you have tired him on both sides pretty thoroughly, or if he refuse to take to his trot kindly, and to obey your voice and a moderate pull on the bit, you can raise both his fore feet, drop him upon his knees, and let him make a few bounds in that position."

TIGHT BARN.—The *Massachusetts Ploughman* has the following eminently sensible remarks on a very important subject:

Cattle must have air, or they die. Hay must have air, or it becomes musty. Corn must have air in the crib, or it rots. Many farmers seem not to understand this; and they enclose their barns as tight as double-boarding will permit—making it necessary to give their hay two or three hours more sunning than it would need in barns that admit some air between the boards.

It is an universal law that all living animals require air. Even fish in the ponds die very soon when deprived of air. They inhale a small quantity through their gills; and, by closing these gills tight with twine, they die in their own element. Some animals require much more than others. Those living under water require the least; while the fowls of the air require the greatest quantity, and their blood is warmer than that of cattle. But the blood of fishes is comparatively cold.

The alarming fever among cattle, which prevailed here last year, was generally supposed to have come from Holland, whence Mr. CHENERY, of Belmont, imported his cows. Different opinions were given on this point; but most of the papers on farming were filled with accounts of fevers that had often prevailed in Germany, England, and France. And they had not the least doubt that Mr. CHENERY had imported the German fever with the German cows.

But we are now confirmed in the opinions heretofore expressed by us—for Mr. CHENERY himself told us, last week, that he had no doubt the fever among his cattle was caused by their being confined closely in his very

tight barn. His agent, also, who has the care of his cattle, stated to us explicitly that the want of free air was the sole cause of the fever.

And now for tight barns. Why will practical farmers continue to throw away their money in building barns so tight that the cattle can not breathe in them—so tight that the hay becomes musty, and the horses become diseased with the fever?

We have been recently informed that a gentleman in Walpole has been building a barn so costly that but few farmers could think of imitating it. The cost was \$6,000. Well, it was filled with hay last summer, but it could not hold hay. Soon after haying was over, the owner went into his barn, and declared that the hay was on fire. It actually smoked so much that he thought spontaneous combustion must take place.

He ordered the mows to be overhauled, and the side boards to be opened to let in air. His hay, of course, was nearly spoiled, and would be worthless without removal.

It is cruel to keep cattle tied up in cold barns, as many have done, where draughts of air pass through, and the frost freezes hard the manure behind them. But the poorest farmer can prevent all this, if he has ingenuity enough to place his principal haymow on the cold sides of his barn, to stop all draught of air through it.

The hay may be dealt out in winter in such a way as to leave that portion of the mow on the cold side or sides untouched till mild weather comes. A hay-cutter will leave the mow in good trim.

The wall boards of barns should not be jointed. It is loss of labor and of lumber to make the edges straight by planing or jointing. Good barn boards will come together quite close enough by merely pressing them together by means of a small iron bar.

Boards put on in this way will keep the snow out, and let a little air in—enough to keep hay from spoiling and cattle from catching fevers.

HALF LEICESTER AND MERINO SHEEP.—The Boston *Cultivator* alludes to a flock of 100 sheep, half Leicester and Merino, belonging to E. A. PARKS, of East St. Johnsbury, Vt. Mr. P. says: "I have two rams of that cross that will weigh 200 lbs. each. They have yielded fleeces of 12 lbs. each. My whole flock generally averages $\frac{4}{5}$ lbs. washed wool. My flock last year gave me $\frac{6}{5}$ lbs. of wool per head, unwashed, and raised 100 lambs from 98 ewes. The sheep brought me in about \$4.50 per head last year, and would have done as well this year if I had not sold till now. I have my lambs come in April or last of March; keep them under sheds, and give them what good hay they will eat, and give them grain when they first come to the barn. About the first of March I commence giving them grain again, and continue it till they go to pasture. When the hay crop is short I give them grain all winter. I have sometimes bought in Boston the second quality of beans, when they could be had cheap. It is a good plan to give sheep some browse throughout the winter, and give them sulphur in their salt, occasionally, and let them have good water as they want it."

RABBIT BREEDING IN FRANCE.—The *Aigle du Midi* states that a farmer named PINEL, of Revel, in the department of the Haute-Garonne, has lately commenced breeding rabbits on an extensive scale for consumption, and that he expects the operation to be successful in a commercial point of view. In the space of five months from May last, he, with fifty female and five male rabbits, obtained 1,300 young, and he now intends to have 200 females. By allowing these latter to produce only every two months, instead of every month, as they can do, he calculates that he can procure 500 rabbits a month, or 6,000 a year. He has had constructed a large shed, 30 yards long by 20 wide and 40 high, and in it are 140 compartments, of

which 10 are set apart for young rabbits separated from their dams, 14 for the adults, 12 for the males, and the rest for doe rabbits and other purposes. PINEL makes this calculation: Out of 270 rabbits born every month the average number of deaths is 12, so that there remain for sale 258, which can be disposed of for 22 cents each, making \$56.76, or \$681.12 a year. This sum is increased to \$931 by the sale of the manure. The expense of producing 258 rabbits is estimated at \$274, so that a clear profit remains of \$657. As rabbits can be fed in great part on the refuse of the farm house and farm yard, it is thought that peasants might, like PINEL, breed them with advantage.

VENTILATING STABLES.—The *Irish Farmers' Gazette* says, "The best mode of ventilating stables or any other buildings is to make provision for the admission of pure air from the exterior, and the escape of the foul and exhausted air from the inside, which ascends to the upper portion of the apartment. To do this, make apertures in the outside walls behind the horses, about $2\frac{1}{2}$ feet from the external surface, with a descending flue to within 6 inches of the floor, where there must be an aperture at the inside. These apertures and descending flue are for the admission of pure air; both the outside and the inside apertures should be guarded with close grating. For the escape of the foul air, a horizontal shoot must be put up over the horses' heads, close to the ceiling, made of perforated zinc, open to the external air at both ends, which should be guarded by a valve that may be opened or shut at pleasure, so that if the wind blows against one end it may be shut and the other end opened. By this plan a constant circulation may be maintained.

CIDER FOR DYEING PURPOSES.—The *Mark Lane Express* says: "We are threatened with a cider famine, not from the failure of the apples, but because they are likely to be applied to a more profitable purpose, so far as the growers are concerned, than to making a household beverage. It seems that the Manchester dyers and printers have discovered that apple juice supplies a desideratum long wanted in making fast colors for their printed cottons, and numbers of them have been into Devonshire and the lower parts of Somersetshire buying up all the apples they can get, and giving such a price for them as in the dearest years hitherto known has not been offered. We know of one farmer in Devonshire who has a large orchard, for the produce of which he never before received more than £250, and yet he has just sold it this year to a Manchester buyer for £360. There can be no doubt that the discovery will create quite a revolution in the apple trade."

KINDNESS TO ANIMALS.—The *New York World* well remarks: "Gentleness, like charity, is twice blessed—the effects of which on the animals around the homestead are scarcely less noticeable than upon the family of your household. No man can be truly kind to the latter without letting his cattle feel the influences of his spirit. Soft words and kind looks turn away wrath among cattle as among mankind. Harshness has its curse in the hatred which the "brute beasts" feel, though they can not utter their scorn, except in occasional kicks or bites, and by general "ugliness," as it is sometimes called. An ear of

corn, or a little salt, or a lock of hay, or even a kind look or gentle action, such as patting your horse, has influence more or less in making your appearance always a source of pleasure to the animals around you. It is a cheap luxury, this rendering even the brute beasts comfortable around your homestead."

AN AGRICULTURAL MISSIONARY.—The *Journal d'Agriculture Pratique* says the Agricultural Society of Flemish Prussia has created a professorship to carry healthy ideas concerning agriculture into the villages. The German professor is to commence his operations by making himself acquainted not only with public functionaries, but also with practical farmers. He is to gather information on every subject in connection with the details of farming, and with regard to the different races of animals in the various departments. This agricultural missionary is also charged by the Society to get up clubs, schools, etc., etc., and to embody the results of his observations in a clear and concise manner in a daily journal.

SAND ON GRASS LANDS.—The *Maine Farmer* states that the Hon. Mr. HAGER, of that State, had spread some sand that was brought as ballast in one of his ships from Galveston, Texas, on his grass lands, and found it to be quite beneficial. It does not follow from this that this particular sand possesses a high fertilizing value. Ordinary soil frequently has a good effect on grass land, acting perhaps as a mulch.

LAMBS FOR THE BUTCHER.—The *New York Tribune* says truly that if a South Down ram is crossed upon selected ewes of the common stock of the country, lambs may be obtained of an average value to the butcher of 25 per cent. higher than lambs of the same age, from the same stock, of the native breed. Where South Downs can not be obtained, the Leicesters will do nearly or quite as well.

AMERICAN PLOWS.—A correspondent of the *London Mark Lane Express* says: "The Americans have driven our plow-makers out of the Australian, Indian, and colonial markets, owing to their lighter and cheaper articles. Unless our makers bestir themselves here, by using steel instead of heavy castings, they will be likely to be 'beaten on their own ground.'"

THE POTATO CROP IN SCOTLAND.—The *Scottish Farmer* says: "In all the best potato growing districts the crop, as a whole, is a sad wreck. On the rich black loams in the north and west of Scotland—more especially those in the neighborhood of the towns, and which were highly manured—the disease appeared early. The crops that were not speedily sent to market soon became entirely unfit for any purpose. In numerous instances, on retentive soils, it was never gathered, but plowed under. In the same districts, where the land is poorer, on peaty and moory soils, and particularly when there was no great forcing with nitrogenous manures, the larger portion of the crop is yet sound, though the tubers are small and watery. Indeed, the crop is so inferior in quality that it will be only fit for seed. It is well known that unripened potatoes produce more vigorous shoots than those which are dry and starchy. We have little doubt, therefore, that good seed will not be quite so scarce a commodity as was at one time expected.

The *North British Agriculturist* (Edinburgh) says that

the potatoes have rotted so badly since they were dug that "there will not remain for consumption above one-third of an ordinary average crop." The *London Agricultural Gazette*, in commenting on these facts, remarks: "Scotland furnishes so large a share of our supplies that this shortcoming must affect the prices in the English market."

WORKING CATTLE.—The *Prairie Farmer* has a sensible article in regard to working cattle—thinking them preferable to horses for the "drudgery" of the farm, plowing, harrowing, heavy hauling, etc. We are inclined to except the harrowing. A fast-walking span of horses is best for this operation. It thinks the demand for horses for army uses should induce farmers to keep more working oxen.

WHEAT AND CORN DOES NOT PAY IN THE WEST.—The *Prairie Farmer* says, with all the emphasis which italics and an earnest conviction can give: "*It is no longer profitable to grow wheat or corn exclusively as a farm crop, and the farmer of the West must turn his attention to a more diversified and mixed husbandry if he expects to keep up the progressive condition of his farm.*"

POTATOES TWO YEARS OLD.—A correspondent of the *Scottish Farmer* says that a large quantity of potatoes were accidentally buried about six feet deep in an old ice well. Two years after, in digging to remove the stones from the well, the workmen came upon the potatoes, and found nearly the whole in an excellent state of preservation.

PRICE OF PORK.—The *Massachusetts Ploughman* remarks: "Hogs are now sold in market at a low figure; but, as we have a large army to be fed, and as Europe must have a large supply of grain from America, the probability is that good pork will soon command higher prices. At any rate, we can keep it, for we can procure salt at any time."

A LARGE TURNIP.—The *New England Farmer* mentions as something wonderful—"a Purple Top turnip which weighs, without leaves or roots, 10½ lbs., and is nearly a Sabbath-day's journey round it." We have seen many turnips of this variety (Skirvings) which weighed half as much again, and a few, more than double the size.

WHEAT IN MINNESOTA.—The *Minnesota Farmer and Gardener* says: "Wheat in Minnesota this season will not yield over half as much as in 1860. The average will not be over twelve or thirteen bushels. Of course it does not pay, at present prices [50 to 60c. per bushel], for the labor of raising and carrying to market."

CORN AND COB MEAL FOR POULTRY.—The *Maine Farmer* recommends to feed poultry with meal made by grinding corn together with the cob. It says that hens and turkeys eat it with avidity and thrive well upon it.

DRILLING CORN.—A correspondent of the *Country Gentleman* mentions an experiment which satisfies him that more corn can be raised from drilling in the seed than from planting in hills.

SMALL PIGS.—The *New York Tribune* says a small-boned breed of pigs that mature early, so as to weigh 100 lbs. at six months old, always sell at extra prices in the New York market.

THE CROPS OF MAPLE SUGAR.—*Hunt's Merchant's Magazine* estimates the crop of maple sugar for the past year at 28,000 tons, which at 8 cents per lb. amounts to \$5,617,000.

CAVALRY HORSES.

In the September number of the *Genesee Farmer* for last year, we took occasion to remark that the assertion made by some writers that we had no horses suitable for cavalry, because we had "*permitted racing to die out*" was not sustained by facts. The editor of the *Boston Cultivator*, who is good authority, makes the following remarks on this subject:

Many false statements and much false reasoning are perpetrated in regard to the character of the horses procured for our army. One writer attempts to show that the horses gathered on the Potomac are very inferior as compared to English cavalry horses, and another contends that in the present contest, "the best horses, as a general rule, will be in the hands and use of our foes." And yet the noted Mr. RUSSELL, the *London Times* correspondent, has very highly praised our horses. The reason assigned why the horses of the rebels are better than those of our Government, is that they have more of the blood of the race-horse, or so-called "thorough-bred." Reference is made in support of this notion to the success of the English over the French, in several battles, and especially at Waterloo. The utter fallacy of this assumption will be seen when it is understood that the horses which are believed to have rendered such service to the English at Waterloo, were the heavy "household troops," which were and have always been to a great extent bred on the Continent.

In reference to this matter, YOVATT remarks that a considerable change has been made in the English cavalry-horse by crossing with the thorough-bred, which, he says, was in some respects beneficial, "lightness and activity" being an improvement for "skirmishing and sudden attack." But he adds: "There is danger, however of carrying this too far. It was proved at the battle of Waterloo that *our heavy household troops alone* were able to repulse the formidable charge of the French Guard."

It was in reference to these "heavy household troops," therefore, and not to the lighter charge of race-horse character, that NAPOLEON uttered the *heart-felt* exclamation—"See those terrible horses!" his own being literally trodden down.

Would it not be as well for those wiseacres to wait till the horses of the Confederate and Federal armies have seen some service before they decide so positively against our own?

POULTRY IN ENGLAND.—As a class, English farmers do not pay much attention to poultry. They look after their Short-horns and South Downs; but poultry is considered rather beneath notice. There are with us some farmers who appear to entertain the same opinion. The *London Agricultural Gazette* of Oct. 26th says:

"It is an undeniable fact that while in many counties poultry keeping as a business is being given up by agriculturists, the supply of it to the London market by *foreigners* is assuming the proportions of a very large trade. It is not by them thought beneath the attention of men of capital, station, enterprise, and education."

MANAGEMENT OF HONEY-BEES.

MANY bee-keepers still continue in the use of hives of an unsuitable size, and not unfrequently having them of various dimensions, according to the size of the swarms as they issued. These men are persistent in the opinion that a small swarm requires a small hive, and a large one a tenement in proportion to its numbers. This is decidedly wrong, as I shall endeavor to explain.

I contend that the proper size of all hives, in all latitudes and climates, is in solid contents about 2,000 cubic inches. Now, if we place a very large swarm in a hive of this size, and at the very same time place a very small one in another of equal dimensions, the result, at the expiration of one year or longer, will be the same in regard to the condition of the bees, their numbers, future prosperity, etc. The small family, we must take for granted, has numbers enough to store up honey sufficient to last them till the first of the following May, when, though they have constructed but a few combs in their hive, and those extending but half or less of its length, they will begin to increase rapidly in numbers, and by the first of July they will, as a general rule, have completely filled their hive with combs and bees, and quite probably have thrown off a swarm, or will soon do so, and perhaps more than one.

Let us now see what the condition of the large swarm will be at the same time. It will fill its hive with combs the first season; but in the following spring it will not be a whit more prosperous, nor any stronger than its neighboring families, which commenced "housekeeping" on half the numbers that it had at swarming, and on the first of July its condition, as a general rule, will not be in any respect preferable to that of the small swarm.

The reason of this is that the worker bees all die within six to eight months from their issue from the cells; and though a dozen swarms were to unite, and all be hived together in a mass, at the end of eight months not a single bee of the whole original numbers, except one queen, would be in existence, and, of course, would be no better or more valuable than a single ordinary swarm would be, except as to the storage of *cap* honey during a few weeks immediately after being hived.

If a small swarm be placed in a small hive, after the first season they will labor to a disadvantage, just in proportion to the size of their tenement under 2,000 cubic inches; and if a large swarm, or, several swarms united, be hived in a box containing more than those dimensions, after the first year the prosperity of this colony, the issue of swarms, and storage of surplus or *cap* honey, will decrease in an inverse ratio to the size of their hive over 2,000 cubic inches.

Every prosperous family of honeybees contains but one female or queen bee. She produces all the eggs, amounting frequently to 50,000 in a season, but ordinarily I suppose about 30,000 to be the average. The cells to hold this number of larvæ may be found in the combs of a hive, say 12 inches square in the clear (inside) and 14 inches long, and leave a *store* comb on each side, and also space for the usual drone bread. Smaller hives are found, by the long experience of our most extensive apiarians, especially in cold latitudes, not to answer the purpose as well as larger

ones, more especially in not affording space for a sufficient storage of honey to keep the bees through our long, cold winters. If made larger than the foregoing dimensions, too much honey is stored up in the dwelling part of the hive, at the expense of the *cap*, or market honey, and less swarms are thrown off in such large hives.

If hives were to be used 18 inches square, and two feet long, but very little, if any, surplus honey would be stored up, and if any swarms were to issue, they would rather be exceptions to the rule than otherwise. The natural causes which determined bees to leave their hives in swarms is the want of room for all to labor to advantage, and if we place a swarm in a dark room, or in a cask or large box, the probability is that no swarms would ever issue. In some cases, where the hives are not over double the size that I recommend (2,000 cubic inches) an occasional swarm is thrown off; but, as a general rule, give the bees space enough and no swarms will issue.

WINTER MANAGEMENT.—Bees that are protected in outdoor situations from the severe frosts of winter by coverings of any kind should not be disturbed, as the more quiet they are kept the better will they pass the winter. Nor should they be aroused from their lethargy in any case, unless proper feeding of families short of honey has been neglected in the fall. In such cases, if the bees must be fed or die, on the first mild day take honey in the combs, if it can be obtained, and place it where the bees can reach it, without going over an inch or two from where they cluster. If there are holes in the hive that lead to an upper room or chamber, rap upon it smartly, and where the bees most appear there place the honey, taking care that a portion of honey is so placed that the bees will be drawn out to the main supply.

Where comb honey is not to be obtained, either strained honey or syrup made of sugar will be a substitute. Take white coffee sugar and place it in a kettle, to which add about half a pint of water to the pound; heat it to the boiling point, then skim it, and turn it into a pitcher. When fed to the bees, this syrup should be slightly heated, in order to allow it to enter the cells of honey combs easily. A piece of empty comb should be placed where the bees will have easy access to it, and the cells filled as often as can be done conveniently. In this manner a family of bees may be kept from perishing till the next harvest comes around.

If any of the readers of the *Genesee Farmer* are in the habit of allowing their bees to remain out unprotected in winter, permit me to say that if they reside in a climate as cold as Central or Northern New York, I think they are very unwise. Indeed, I may say with propriety that they do not understand what is to their interest, in regard to the management of bees.

It is a frequent occurrence that beekeepers lose in the winter all the increase of the preceding season, or at least add nothing in numbers to their apiaries, from year to year. This is bad management, and may be easily remedied. I gave detailed rules in preceding numbers of the *Genesee Farmer* for protecting bees in winter, and I shall endeavor during the current year—1862—to impart a large amount of sound, practical information on the management and domestic economy of the honey-bee to the readers of this periodical. Having made the habits and practical management of this insect a study for many years, and having one of the largest apiaries in this State, I think that what I shall say on this subject monthly will not be wholly void of interest nor of reliability.

T. B. MINER.

Clinton, N. Y.

PEAS AND POTATOES ON THE SAME LAND FOR HOGS.

AN intelligent farmer of this county asks our opinion in regard to planting a strip of early potatoes and a strip of peas to be fed to hogs on the land. He would turn in the hogs as soon as the peas were ripe. They would root up all the potatoes, and the peas and potatoes together would form excellent food. The pigs would get fat, and at the same time make the land fat with their droppings.

What do the readers of the *Genesee Farmer* say to this idea? It strikes us favorably. Some may deem it rather a slovenly practice. But it would save a great deal of labor.

There can no longer be any doubt on one point. Peas when consumed on the land where they are grown add greatly to its fertility. Whether the same is true of *potatoes* is an open question. Our own opinion—and we have made many experiments designed to throw light on the point—is that potatoes must be considered as an exhaustive rather than as a renovating crop. They differ in this respect from turnips.

We suppose the reason why our friend wishes to plant potatoes with the peas is to furnish a food containing sufficient water for the pigs. But if the peas were fed out on the land before they were ripe no such necessity would exist. Our object, however, is not to discuss the question ourselves. We leave it to our correspondents. We may state that the question is asked by one of the best and most intelligent farmers we know, and is therefore worthy of attention.

SINGING AT THE PLOW.—YOUATT, in his work on Cattle, mentions the following pleasing practice as common in Devonshire: "A man and a boy attend each team; the boy chants that which can scarcely be regarded as any distinct tune, but which is a very pleasing succession of sounds, resembling the counter tenor in the service of the cathedral. He sings away with unwearied lungs, as he trudges along, almost from morning to night, while every now and then the plowman, as he directs the movements of the team, puts in his lower notes, but in perfect concord. When the traveler stops in one of the Devonshire valleys, and hears this simple music from the drivers of the plows on the slope of the hill on either side, he experiences a pleasure which this operation of husbandry could scarcely be supposed to be capable of affording. This chanting is said to animate the oxen somewhat in the same way as the musical bells that are

so prevalent in the same country. Certainly the oxen move along with an agility that would scarcely be expected from cattle; and the team may be watched a long while without one harsh word being heard, or the goad or the whip applied. The opponents of ox husbandry should visit the valleys of north or south Devon, to see what this animal is capable of performing, and how he performs it."

THE ADVANTAGES OF CRUSHING OATS.—The London Omnibus Company have lately made a report on feeding horses, which discloses some interesting information not only to farmers, but to every owner of a horse. As a great number of horses are now used in the army for cavalry, artillery and draft purposes, the facts stated are of great value at the present time. The London company uses no less than 6,000 horses; 3,000 of this number had for their feed bruised oats and cut hay and straw; and the other 3,000 got whole oats and hay. The allowance accorded the first was, bruised oats, 16 lbs.; cut hay, 7½ lbs.; cut straw, 2½ lbs. The allowance accorded to the second, unbruised oats, 19 lbs.; uncut hay, 13 lbs. The bruised oats, cut hay and cut straw amounted to 26 lbs.; and the unbruised oats, etc., to 32 lbs. The horse which had bruised oats, with cut hay and straw, and consumed 26 lbs. per day, could do the same work as well, and was kept in as good condition as the horse which received 32 lbs. per day. Here was a saving of 6 lbs. per day on the feeding of each horse receiving bruised oats, cut hay and cut straw. The advantage of bruised oats and cut hay over unbruised oats and uncut hay is estimated at 5 cents per day on each horse, amounting to upward of \$300 per day for the company's 6,000 horses.

"LET FARMERS TAKE COURAGE."—So says the veteran editor of the *Massachusetts Ploughman*. The farmer, in times of general trouble, is better provided for than any other class, for he has the means of providing for his own wants—he can live on his own means better than any class which does not produce the necessities of life, but depends on purchasing them of others. If prices are rather low it is because we have had a more favorable season for the products of the earth than usual. Farmers, therefore, must not be discouraged at what are thought to be low prices—for money can not fail to be abundant while we send away none to Europe; but, on the contrary, we send out farm produce, and receive in return a cash balance each week.

TILLAGE MEANS MANURE.

WE have frequently called attention to the fact that the etymological meaning of the word manure is *hand labor*—from *manus*, hand, and *ouvrer*, to work. To *manure* the land originally meant to cultivate it, to hoe, to dig, to plow, to harrow, or to stir it in any way so as to expose it to the atmosphere, and thus render its latent elements assimilable by plants.

When our first parent was sent forth from the Garden of Eden to till the ground from whence he was taken, he probably did not know that the means necessary to kill the "thorns and thistles" enhanced the productiveness of the soil. Yet such was undoubtedly the case.

The farmer for centuries was simply a "tiller of the ground." Guano, though formed, according to the opinion of BOUSSINGAULT, long ages before the creation of man, was not then known. The coprolites lay undisturbed in countless numbers in the lias, the greensand and the Suffolk crag. Superphosphate was not used. Sulphate of ammonia, nitrate of soda, poudrette and fertilizing salts were unknown terms. We can hardly imagine what the agricultural papers of those days, if there were any, could find to talk about. There were no "Frands in artificial fertilizers" to be exposed; nothing to be said for or against "the mineral manure theory;" the "exhaustion of the soil"—the most fertile subject of modern days—was never thought of. The grateful Earth, fresh from the hands of her Creator, needed only to be tickled with a hoe to make her laugh with a harvest. Nothing was said about oil-cake; the nutritive effect of foods might be considered without any reference to the fertilizing value of the elements derived from their consumption. Nothing was said of underdraining or steam plowing. For many centuries, the hoe, the spade and the rake constituted Adam's whole stock in trade.

At length a great discovery was made. A Roman farmer stumbled on a mighty truth. Manuring the land—that is, hoeing and cultivating it—increased its fertility. This was well known—had been known for ages, and acted upon. STERCIUS, who was undoubtedly a close observer, discovered that the droppings of animals had the same effect! What more natural than to apply the same term to things that produced the same result! But it is to be regretted that, till recently, the original significance of the term *manure* should have been forgotten.

It has long been known that "summer fallows"

caused the land to produce greater crops. But the real significance of the fact was not appreciated. Many have decried, and still decry the use of summer fallows. But at length the *causes* of their beneficial effects are beginning to be understood. Stirring the soil, exposing it to the air, induces important changes and sets free its latent plant-food.

In the *Genesee Farmer* for September, 1861, we called attention to an article in a leading British agricultural journal, headed "Cultivation and Manure as Fertilizing Agents," and remarked that such phraseology would not have been understood a few years ago. We have just read an article in the London *Agricultural Gazette* received this morning, which commences as follows: "A fair autumn well used is worth another guano island to the country. The operations of the last two months upon our stubbles have been as good a guarantee of next year's crops as if the contents of such an island had been spread upon their surface."

It may be that this is a little extravagant. But we can not help feeling a certain degree of pleasure that views which we have long entertained are beginning to receive the sanction of some of the ablest scientific writers of the day. We hear little now of "soil analyses"—of finding out what particular element is needed, and then dusting it over the land from a snuff-box! Scientific men are turning their attention to the operations of *practical* agriculture. They are beginning to investigate the causes of practices which the experience of intelligent farmers has proved to be judicious.

That tillage and manure are one and the same thing, is a great truth. For some years, too much attention has been given to manure to the exclusion of tillage. Let us not now run to the other extreme, and bestow so much thought on tillage as to forget the importance of manure. Let us cultivate the ground well and make all the manure we can. Both are needed.

THE POTATO DISEASE—DIGGING EARLY.—Now as winter is fairly upon us, I wish to compare notes with the correspondents of the *Genesee Farmer* in respect to the potato rot, as the disease prevails to a considerable extent in this vicinity. I had some potatoes dug as soon as the tops began to die, and got them into the cellar. At this time (Dec. 3) there is scarcely any rotten ones among them; while some others, dug the latter part of October when the ground was wet, are badly diseased. I have sorted them all over once, and taken full one-half out, and the cook complains loudly of bad potatoes even now. The former were dug during September while the ground was dry. The varieties in both parcels were English Flukes and Purple Mercers. The Mercers suffered most. The soil in the two cases is a heavy loam.—D.; Gates.

AGRICULTURAL FAIR IN ITALY.

A CORRESPONDENT of the London *Times* gives a spirited description of the National Exhibition of Italy, recently held at Florence:

A cattle show in Italy is something quite different from what an English county town usually exhibits. In England, cattle are reared to make meat; in Italy, to get bread. In the former country, every effort is turned to rear and fatten the ox with all possible speed for the butcher; in the latter, the grower's aim is to fit the ox for the plow. The horse has hardly any share in field labor throughout the Peninsular, and even for heavy draft the ox in the plain, and the thin, half-starved cow in the mountain, are almost exclusively used. Twice, and thrice even, the day before yesterday, was a yoke of oxen pressed into the service of the mail coach to tug us up-hill in our journey across the Apennines. What the Italian looks for in his horned cattle is, therefore, bone, muscle and sinew; and for such requisites, no doubt, the Florentine show has something to boast of almost amazing. There are steers that are to the bovine race what London dray-horses are to the equine—each of them an elephant as to height and width, a picture as to symmetry, a colossus as to strength. * *

The color of the genuine Italian breed of cattle is almost uniformly straw yellow, or pearl white, and nothing can equal their sleekness and cleanliness. Whether this is the effect of the shortness of their hair and the peculiar healthiness of the skin, or whether the Italian boor takes that pride in the look of his cattle for which he does not show the same care about his own person, is more than I am able to say; but it is a fact that I have often remarked in the *Emelia*, and which I again witnessed here to-day, that oxen and cows in Italy looked as thoroughly groomed, as smooth and shining, as English race-horses. All of these huge field-laborers, the cows and the very bulls, have a placid, half-dreamy look, indicative of the very best nature, and of a temper which no provocation would ruffle. I noticed the Archbishop of Pisa's steers, in particular, with the classical profile of their heads, the slightly arched frontal bone; the meditative, almost clerical gravity of expression, for which, taking their prodigious bulk into account, it was impossible not to feel a certain degree of reverence and kindly affection. But, besides these giants of their race, and a certain number of black *bufali* and camels, and other varieties, either peculiar to this country or borrowed from the eastern or southern shores of the Mediterranean, the show consisted of a variety of mixed breeds, with very good specimens of Durham, Hereford, and other English and Swiss cows, for in all parts of Italy, and especially in Tuscany, many of the traveled nobles have imported as much as they could from more advanced communities, and English improvements, especially, engage the attention of agriculturists. The same remarks apply to the poultry, sheep and swine show. The old lank and lean Italian pig, with the legs of a greyhound and ribs of a racehorse, with which old pictures have made us familiar, has almost disappeared from the most enlightened parts of the country, and both King Victor Emmanuel and the Marchioness of Laiatico exhibit fine, round, white-

legged grunTERS, which have little to envy the English parents from which they evidently spring.

The show of horses is pretty fair. The King is the most ardent and extravagant horse-fancier in the world.

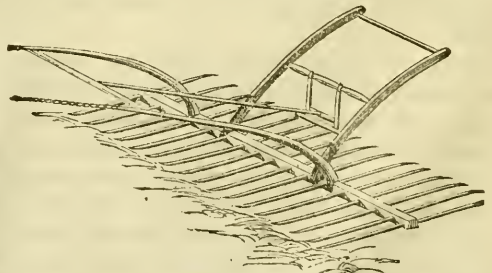
Asses and mules present a respectable muster. I stood long gazing at a stall over which were written the words, "*Asino, puro sangue*;" off with your hat to this illustrious scion of asinine aristocracy! I wondered what great great grandson of Balaam's charger stood before me, or by how many degrees the pure-blooded dapple, shaking his long ears over that manger, was removed from his cousin the wild animal painted with such glowing colors in Oriental writings? *Asino, puro sangue*! I never felt the inanity of human claims to noble descent as I did in the presence of this undoubted offspring of that prototype of his genus which brayed in Noah's Ark. By the side of this uncontaminated patrician I noticed other "asses of mixed breed," wretches who had sullied the bright honor of their race by *mésalliances*, and whose degeneracy was visible in their comparative ungainliness of shape and feature, and audible in the jarring notes of their vulgar vocal organ. I saw the most diminutive specimens both of the equine and asinine races from the Islands of Sardinia—pocket ponies and pocket donkeys—as I never saw before.

AMERICAN FARMING AS SEEN BY AN ENGLISH-MAN.

THE *Mark Lane Express* is publishing a series of letters entitled, "Recollection of Rambles through American Farms." The first farm described is that of Mr. B—, in the central part of this State:

Arrived at the farm of B., and refreshing myself with a hearty meal, B. and I sallied forth to see what was to be seen; and there was much to feast my "old country" eyes upon, for many "notions" were there worth noting down.

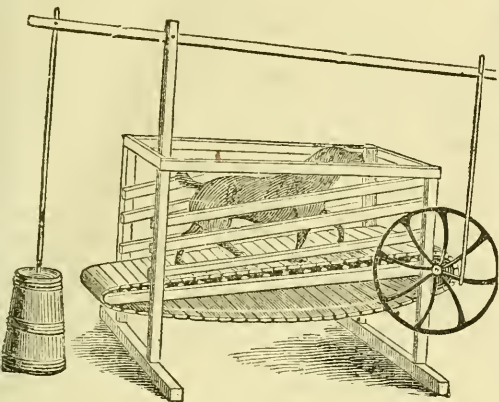
I remember the first "notion" which greeted me was a "hay horse-rake." This implement is far more highly esteemed and more largely used in America than with us, although it is to be noted that its use is gradually extending here. We took, at the time, "working drawings" of the one which my friend used with such saving of time, and the merits of which he descanted upon with such zest and earnestness.



[We annex a cut of this well known rake, but omit the description, as our readers are familiar with it.]

The Americans are particularly clever in inventing what they call "labor-saving machines." In-

deed, they are forced to do this through the scarcity of hands, and the high wages they demand. A few of these we shall take occasion to notice, contenting ourselves, at present, with the drawings and description of one of these labor-saving contrivances, which we saw on B.'s farm—namely, a “dog churning apparatus.”



DOG POWER CHURN.

In passing out to the yard, we had occasion to go through the dairy, on approaching which, my host shouted, “Hallo, Jem! go on, sir!” the reply to which was an increase in the “rattle, rattle,” of an apparatus which had evidently been only languidly at work. This appeal had been addressed, as I discovered on entering the dairy, to a dog, which I saw walking doggedly (no pun, good reader, I protest!) up—or rather, attempting to walk up—an inclined plane, the surface of which, being moveable, yielded to his tread, and effectually prevented him from reaching the summit of his walk, to which he was ever approaching, but which he never reached. Doubtless, to a dog of a thinking mind, the mystery of the eternal walk, walk, without any corresponding advance, would be puzzling. B. told me many amusing traits of the two dogs he kept for churning purposes. Each took the “demnition grind,” as Mantalini would have termed it, in turn; and it was curious to know with what accuracy the dogs knew the return of the churning day. So well, indeed, did they know, and, knowing, dread it, that, if not locked up the night previous, the morn of the churning day would arrive, but it would bring no dogs to do its work. They would wisely “slope” to the quiet shade of the woods hard by, where the silence would be unbroken by the rattle of their treadmill. Such decamping always ended by the due return of the dogs, but at such a time as to make sure of the churning having been performed by human hands, or by other dogs, duly “loaned” from some neighboring farm.

STARTING A BAULKY HORSE.—A correspondent describes what to him was a novel way of curing a balky horse: Fasten a strong rope to his tail; pass it between his legs; then attach a team to the rope and give the word, forward march!

CULTURE OF TOBACCO AT THE NORTH.

LEVI BARTLETT, of New Hampshire, writes as follows to the *Country Gentleman*:

As the old song has it, “Tobacco is an Indian weed,” and a vile weed it is, too; nevertheless, men and women, and even children, will in one form or another make use of it. Millions of people daily chew, smoke, or snuff it, and they will continue so to do as long as water runs and tobacco is grown, and it is a nearly useless task to argue and reason with them of the expense of it, or of its deleterious effect upon the human system, or of the filthiness of the habit. In despite of all these, chew, smoke, and snuff they will, whether tobacco is ten cents or fifty or more cents per pound, or cigars are two for a cent or ten cents for one cigar. It makes but little difference—indulge in the luxury they will. In these matters this is yet a free country, and every one has the privilege of doing as he or she pleases—providing they do right, and enact no wrong in their doing. And it does not well become me, an habitual user of the weed of forty years’ standing, “to get up in meeting” and declare the use of tobacco wrong. No man is obliged to bear testimony against himself.

The truth is, mankind are as the poet BURNS said, “an unco squad,” having many evil propensities, and unfortunately too many of us are prone to gratify them. Therefore we must take human nature as it is, and men and women as they are, and a portion of them will use tobacco, despite all the scolding and lecturing of a whole army of self-styled reformers and anti-tobacco societies, to say nothing of the expense—which, by the way, is no trifling sum with thousands, both of the rich and the poor. At the low price tobacco has been selling for years past, it has cost many a stingy farmer from \$5 to \$15 per year for tobacco for his and his family’s use. If his town or county should assess upon him such an additional tax for educational or other public purposes, we should probably soon hear him talking loudly about the “right of secession.”

Tobacco has risen very much in price during the past six months, and if this deplorable war continues for some two, three, or more years, as some persons predict, it will reach a higher figure per pound than the most inveterate chewer or smoker ever dreamed of, unless a large portion of the Free States go into its culture—if not largely, they should raise enough for home use. The plant can be successfully and profitably grown in all the “Free States,” as was the almost universal practice among the farmers here in Central New Hampshire, half a century ago. I have recently inquired of several of our “oldest inhabitants” in reference to its culture, curing, &c., and find they were precisely as now practiced in Connecticut and other sections where grown upon a large scale.

The past season I grew a few splendid plants. For smoking, this “home grown” is tip-top, and for chewing I get the “natural leaf,” pure and undefiled.

Self interest and a just pride of independence should prompt farmers, as far as possible, to raise every necessary farm product for family use—tobacco included, if needed. But, some will say, tobacco is wholly unnecessary, and that the culture

of it is immoral. All that may be true. By the same rule it might be objected to the raising of corn and rye, because from them they distill whiskey. So of hops and barley—because they are converted into lager beer—grapes or its juice into brandy. Some one has said that man was a bundle of habits, and such is the force of one of these habits, that some persons, if they can not purchase tobacco, will beg it—if they can not beg it, will steal it if they can. I hold that it is better to grow it than to obtain it by either of the above-named means. Therefore I go in for raising the weed, and advise others, if they can't get along without it, to do likewise. Any one that can raise good cabbages can raise tobacco. Those who wish to go into its culture on a large scale will find ample directions in the *Genesee Farmer*, May, 1861, p. 144.

THE WAR AND THE HARVEST IN AMERICA.

The *Mark Lane Express* has an article on this subject from which we make a few extracts:

The war at present carried on between the Northern and Southern States has not influenced the American grain production of the present year, although it can hardly fail to do so in another season should the conflict continue.

Why the war has not influenced the American grain production of the present year may be satisfactorily explained, if this really stands in need of explanation. President LINCOLN's election took place in last November, and his inauguration was in March. Before the first-named time the winter wheat had all been sown, and in March, April and May there was no likelihood of the so-called rebels being able to keep the field. Farming operations were therefore undisturbed, and a breadth even greater than that of the previous year was everywhere throughout the northwest planted in the spring with corn, and sown out with wheat, oats and barley. To production on an unusually large scale nothing then was requisite but a favoring season, and that was not wanting. The summer was propitious, the autumn not less so, and if in some districts the corn crop has suffered from early frost, the same thing happened last year, and in fact happens every year. In the best of seasons in America, as in the best of seasons here in England, there is always some unlucky place or other on which the sun has shone too much or too little, that has had too much or too little rain, or something else; but such occurrences are accidental, and not unfrequently are more than covered by unusual productiveness in other parts. Nor have military operations in the field interfered with the gathering and housing of the western and northern crop. A large proportion of the floating and even of the staid industrial population has been attracted from the usual pursuits of peace, and the labor market as a consequence has been more or less disturbed, but the American farmer has long since availed himself to the utmost of McCormick and others. Harvesting in America by the time-honored hand-hook has long been disused, and even the scythe has yielded to the common field and thrashing reaper. In those cases in which the American farmer is too poor to possess a reaper, he may borrow from his neighbor on easy terms, or avail himself of the services

of the professional Yankee harvester, who will clear his fields at so much an acre, or at so much per bushel for the threshed-out grain. Under such circumstances no difficulty whatever could arise in the gathering and housing of the American crop; and even in those cases where the services of a professional harvester can not be obtained, those cases in which there are no McCormick reapers, and not the usual supply of labor, anything like impossibility of gathering can hardly be conceived. The American farmer has always the choicest weather at harvest time, which lasts long enough to enable those ordinarily employed about a farm to clear one field after another at their leisure.

The war, instead of having diminished the American grain production of the present year, may rather, on the contrary, be considered to have added to it most materially. For the war the people of the Southern States prepared themselves; and one of the ways in which they did so was to plant a greater breadth of corn and sow a greater breadth of wheat. There are no means of arriving at a knowledge of the extent of their operations; but that an excessive Southern crop has been harvested is beyond dispute. Only the other day, some of the ships captured by the blockading force off New Orleans were carrying corn to Cuba and the West India Islands; and had there been a scarcity in the South such a traffic would of course have been disallowed. Threatened with scarcity, and with the usual sources of supply cut off in the border States or become precarious, an embargo would unquestionably have been laid on the Southern export trade in grain had the seeded States not for once been provided in excess of their prospective wants; and thus the war has occasioned what may be called a double American supply. The Southern planters have exerted themselves not only to produce a crop of cotton, but a crop of grain; and that they have succeeded is not only attested by the fact that the South is able to export grain to Cuba, but letters from the Southern States, and particularly from the seat of war in Virginia, speak of the Confederate troops as being abundantly supplied with food. In former years, the South depended on Missouri and Kentucky for a large portion of its grain supplies, and as this year it is enabled, and practically obliged, to depend on itself alone, it is highly probable that were the war to end soon, not only the abundance of the West would be heaped upon us, but the abundance of the South would also find its way from Savannah and New Orleans. When the war was inevitable, it will be remembered that, to prevent miscarriage, many of the cotton planters took out the cotton and planted corn—a sacrifice at once evincing the determination of the South, and of itself accounting for the South becoming a grain-producing country.*

Thus for the present the American war is scarcely calculated to excite uneasiness as to the supply of grain in Europe. Probability is on the side of an early peace, and with peace the grain held by South and North and West would be sent to market. Were the war, however, to be carried into another year, and the great Western grain-produce

* Our English contemporary over-estimates the amount of grain in the Southern States. Recent accounts show that produce of all kinds, except corn, is very high. The slave States always raised immense quantities of corn—more, according to the census of 1850, than the free States. EDS.

ing States to engage in it more actively, or to become the theater of operations, the case would be otherwise. Western production would, as a matter of course, be curtailed, and the large unforwarded balance of this year's crop perhaps be kept back by prohibition, or by a price which would leave no profit on its being sent to Europe.

NOTES FROM CANADA WEST.

EDS. GENESÉE FARMER: The cultivation of root crops has become an interesting, and of late an exciting branch of farm labor in our progressive township. At the annual meeting of our Township Agricultural Society, held in January, 1860, the system of giving prizes for the best acre of turnips and the best half acre of carrots, to be adjudged in the field, was adopted, and a special subscription taken up for that purpose. The competition, a year ago, was large, and the results quite satisfactory, proving that it is the only correct system, and one from which good would result. This year it was repeated, with increased interest and keener competition. The following is the table of prizes:

	No. of Prize.	Value.	Weight, lbs., per sq. rod.
Acre of Swedish Turnips:			
Wm. Donaldson,.....	1	\$10	298
T. Plasket,.....	2	6	396
J. Lockhart,.....	3	4	387
Half acre Carrots:			
J. Jackson,.....	1	10	312
J. Thwaites,.....	2	6	273
W. Walton,.....	3	4	253

Three judges, strangers in the township, are chosen, whose duty it is to select what they consider an average rod of the whole acre. The plot is then carefully measured, the roots pulled, topped, and weighed.

It will be seen, by the above table, that upward of 1,000 bushels, or 31 tons, of turnips were raised on an acre, and that not merely on one acre, but whole fields, every acre of which would equal the one chosen. One competitor in carrots whose plot lacked 9 rods of being the required amount—half an acre—raised at the rate of 27 tons per acre, but lost the prize for the above reason. This must be admitted to be a profitable crop, even to value them at 12½ cents per bushel, and they are worth more. It would do some of your farmers good to pass with us through the township, and see the immense quantities of roots grown. They would find out that we grow them for something more than "an auxiliary crop, to be used only in mild weather," and they would discover, also, that though the summers are too dry and hot in York State for their perfect maturity, it is not so here.

The benefits arising from the extensive culture of roots are manifest, not only in the sleek and healthy appearance of horses and cattle, the wintering of sheep and pigs, but in the manufacture of a better quality of manure than formerly, and consequently a more generous return to the soil, resulting in heavier crops, especially of spring wheat, which generally follows roots, seeded with grass. Meadows are much cleaner, and, best of all, it introduces a system of rotation of crops, and supercedes the necessity for naked summer fallows.

With the facilities that European farmers have, such as thorough underdrainage, subsoiling, liquid manure drills, artificial manures, plenty of help,

etc., we certainly could equal, if not surpass them, in nearly all kinds of roots.

With a continuation of the progress made during the last two years, it is possible that the winner of the first prize in this township will raise 40 tons per acre within a very few years, even with our limited facilities.

THE WEATHER AND THE CROPS.—The weather has been exceedingly wet all the fall, and I may say all the year, except a part of June and July. It has been remarkably free from frost. We are now busily engaged plowing for spring crops.

Wheat has not turned out as well as was expected. A great deal has been shipped at less than 85 cents per bushel, and there is no prospect of its being higher. Pork and beef will be low.

BARBERRY FOR HEDGES.—I am convinced that the barberry will make an excellent hedge plant for this climate, both for durability and efficiency. Will some of the experienced readers of the *Genesee Farmer* tell me how to prepare and sow the seed?

R. W. S.

Woodstock, C. W.

REDUCING AND APPLYING BONES.

JAMES S. GRENNELL, of Greenfield, Mass., has sent to the office of the *Country Gentleman* a sample of bones, which had been softened and rendered fit for immediate application in the following simple way. Mr. G. says:

I set an old cask with one head in some convenient spot back of the house, in the spring, and of the bones which have accumulated during the winter I throw in enough to cover the bottom, then enough of unleached ashes thoroughly to cover them; then another layer of bones, then ashes, and so in alternate layers until the cask is full. On top is placed a sufficient covering of ashes, loam, or charcoal dust, to prevent the escape of any gas. I usually wet down the ashes as I proceed, and leave the cask exposed to the weather, that they may be kept damp. By the next spring, when I wish to use them, the bones are thoroughly digested and in a fit condition to use.

In regard to this application and effect, Mr. G. says:

I usually take the mixed bones and ashes, and compost with well rotted manure, a liberal sprinkling of plaster, a little guano and salt, and a load of sweepings from the blacksmith shop, of iron scales, charcoal dust, horse-hoof parings and the manure made there. This I apply to trees, especially pears.

The growth caused by this is astonishing; as you perceive, this compost contains all the requirements, both for growth and fruit, better than any purchased superphosphate, for it has the potash so essential to the pear, and the iron, which is very important. I also prepared my grape border with this.

I not only used the bones saved from our own family, but buy a good many, paying Irish and German boys for collecting about half a cent per pound, which is the market price obtained by the cutlery works for their refuse bones.

I have great faith in the efficacy of both ashes and bones, and I think this combination of them is both cheap and useful.

A LETTER FROM CHINA.

The following letter from WILLIAM BROOK, Esq., U. S. Consul at Swatow, China, will be read with interest:

NINGPO, CHINA, Aug. 20th, 1861.

MY DEAR HARRIS: In no part of the world is so much attention paid to the cultivation of the soil as in China. In many parts of the kingdom every foot of land is made to produce its utmost, found necessary to support its population of 400,000,000. Sterile, rocky, and—to any one but a Chinaman—impossible hills are terraced to their summits, the soil carefully collected from between the rocks and made into beds, often but a few inches wide or a few feet square, and planted with vegetables. The economy of soil is observed on all sides, and by a system of manure and irrigation the poorest soils are forced, year after year, to produce two annual crops.

In the southern provinces bean-cake is extensively used for enriching the soil. The bean grows in the neighborhood of the Gulf of Petchele, is pressed into round cakes a foot in diameter and two inches thick, and exported in large quantities to the south of China and used as guano. The excrement from the human body is regarded by Chinese as the richest manure, and whenever possible the ripening crops are covered with it. Every particle is carefully collected and boarded, and for this purpose stone jars and small open houses are common on the streets in all the towns and cities. These are emptied daily, usually by the Coolie women, and in large open buckets carried into the country. In the neighborhood of Foo-Chow, a city of 500,000 inhabitants, one often meets in the narrow paths among the hills in the suburbs, and where escape is impossible, one or two hundred in a row, of these Celestial female scavengers, with their odoriferous burdens upon their shoulders.

Fruits and vegetables of all kinds are grown in China, but the peaches, apples, pears, water-melons, etc., have an insipid taste—they lack flavor and pungency. The tomato is the only vegetable which has a home taste. Characteristic-like, the Chinese gather fruit when half ripe, but corn for table use is allowed to remain upon the stalk until hard. A hoe is used instead of a shovel; a scoop-shape basket with handles instead of a wheelbarrow. Hands, arms, and back accomplish here what steam and labor-saving machines do in other parts of the world, and a large surplus of patience is indispensable to comfort.

Ningpo is said to be the finest city open to foreigners. It contains a population of between three and four hundred thousand, and is surrounded by a wall some five miles in circuit. The streets are wide and clean as compared with most other Chinese cities, and in some parts of the city a considerable space is occupied by gardens and tombs. The latter, covered with shrubs and vines, give it a rural appearance seldom seen in Chinese towns. The country immediately about is low, and rice is extensively cultivated, but a few miles back there are ranges of beautiful hills, and pheasants, grouse, turkeys, deer, and wild pigs are found in abundance. Ningpo is celebrated also for its excellent mutton. Many of the few good things which the gods have vouchsafed to China are to be had here. The thermometer ranges during the year from 100°

down to zero. For the last ten days it has crowded 100° close, and the same may be expected until the middle of September, but fortunately we are blessed with ice in abundance. The ice is gathered when about two inches thick from canals and artificial ponds, and is packed away in mud-houses built entirely above ground.

Ningpo is more famous for its missionary than its mercantile establishments. Natural obstructions in the river and its close proximity to Shanghai prevent its becoming a great place for trade, whereas the friendly and peaceable character and literary superiority of the people, the climate, etc., enhance its advantages for missionary operations—Church of England Missionary Society, English Baptist Mission, American Presbyterian, American Baptist, Roman Catholic, Sisters of Charity, etc., etc. In about two thousand years the good seed sown in China at such fearful expense of life, and health, and treasure may take root.* The soil is not found very propitious. The Chinese are materialists. Money for the gratification of sensual pleasure they beg for, work for, commit murder and robbery for, live and die for. Truth and honesty, where concealment is possible, are foreign to their natures. They have remained stationary for 2,000 years. A deluge can *never* wash them clean—a fire *may* purify them. As a people they are a marvel—wondered at but not admired.

W. B.

NOTES FROM MAINE.

PUMPKINS AND BEANS AMONG CORN.—It was asked some time within a year, by the editor of the *Farmer*, if it was or was not customary to plant pumpkin seeds and beans with corn at planting time, or after the corn was up, in the New England States, and if it was thought to be injurious to the corn to thus plant them.

As far as I have been able to learn, by inquiry and observation, they are planted with corn generally in Maine; some planting them very sparsely, others liberally, so that, should the corn crop fail, the pumpkins and beans will partly make up the loss. Those planting a week or ten days after the corn do it generally that the corn may get the start in the spring, and if it proves favorable it will take the lead, and the others will be a secondary crop. None, scarcely, consider them otherwise than injurious to the corn, but each one would set the amount differently. If a farmer wishes to raise a premium crop of corn, every other crop is kept out. There are more who plant the three at one time than otherwise. The beans are usually planted upon the north side of the hills, or equidistant between them, and a pumpkin seed here and there according to taste.

CROPS.—Corn proves to be much better than was expected all through the spring and summer, on account of a favorable September. Wheat yields quite poorly, except that which was sown very early, and the grain aphid injured the oats materially. The early drouth, which was the severest for years, cut off the potato crop badly after it promised to be a very good one. The gardens were very generally successfully attacked by insect

*"Let us not be *weary* in well-doing; for in *due season* we shall reap if we faint not." Gal. vi, 9.

depredators, while the apple and plum crop is almost a failure; but the hay, straw, corn fodder, and roots are more than an average. Yet, with these slight drawbacks, upon the whole the farmers are in quite as good a condition, besides the real improvements, which are not a few, as in almost any former year. Land which was seeded down never was more promising for a good hay crop than those of this year's seeding, but the winter and spring ordeal is yet to be experienced.

THE SEASON AND WEATHER.—The spring was wet, cold, and backward, and the cold part continued through the summer, so that it has been called, and justly, a cold season. Though the summer was remarkably dry, the nights were cool, which is generally the case when it is very dry, that is, with us. Since October came in it has been very rainy, though not heavy or hard storms, but warm and frequent rains, giving twelve rainy days, besides several nights, for the month; and November is faithfully following on in the same train.

STOCK, SHEEP, AND HORSES.—The demand for these is fully up to times of peace. Buyers of beef and mutton visit every farm, however isolated, where either are to be found, paying cash for all that are eatable. Beef cattle have not been quite as high as in some former years, nor have store cattle, but ready sales. Sheep are unusually high, with many buyers, ranging from 2½ cents to 3 cents per lb., live weight. Horses, which have been low and dull, are in better demand, and better prices are paid for them since Government commenced buying.

O. W. TRUE.

Elm Tree Farm, Maine.

FECUNDITY OF HENS.

It would seem a providential arrangement in behalf of man that the domestic hen should be endowed with so great fecundity. The ordinary productiveness of a single hen is astonishing. Instances are recorded of hens laying over two hundred eggs annually, while probably one hundred and twenty would be a fair average. Undoubtedly much depends on circumstances as to the productiveness of hens. Climate has great influence in this subject, and the lodging, food, and attention which is bestowed upon these animals have more or less effect in promoting their fecundity.

It is asserted by *Buffon* that a hen, well fed and attended, will produce upward of one hundred and fifty eggs in a year, besides two broods of chickens. We find statements recorded in our agricultural journals of several instances of extraordinary products of hens, which will enable us to form some judgment on the subject.

The editor of the *Massachusetts Ploughman* says from eighty-three hens seven thousand two hundred eggs were obtained, which would give to each hen eighty-four eggs for the year.

A remarkable instance of fecundity in the hen is related by a correspondent: Three pullets of the Poland breed, hatched in June, commenced laying in December following, and, from that to the next December, laid five hundred and fifty-four eggs, averaging one hundred and eighty-five to each hen.

It seems ever to have been an object of great importance in an economical point of view to se-

cure the laying of hens during those periods of the year when, if left to themselves, they are indisposed to deposit their eggs. Old hens can not be depended on for eggs in winter, the very time we want them most. As pullets do not moult the first year, they commence laying at an earlier period than the old hens; and it is possible so to arrange as to have eggs throughout the winter, as well as spring and summer.

Some hens are ascertained to lay at longer intervals than others; some will lay one egg in three days; some every other day; others every day; and we have *heard* of one that laid two eggs in one day! The act of laying is not voluntary on the part of the hen, but is dependant upon her age, constitution, and diet. If she be young, healthy, and well fed, lay she must; if she is old and half fed, she can not. All that is left to her choice is where she should deposit her egg.

66 East 29th street, N. Y., Nov., 1861.

C. N. BEMENT.

SENDING POULTRY TO MARKET.

MESSERS. BRIGGS & HELFRICH, of New York, send us the following directions for dressing, packing, and forwarding poultry to market:

First, see that all poultry is well fattened, as the difference in price in our market between fat and poor poultry is very great. Remember that you not only get pay for every pound your poultry gains in fattening, but by improving the quality you gain from one fourth to one half in price on the whole.

In fattening poultry, it is always the best economy to feed all they will eat. Poultry fed on corn is yellower and better than on buckwheat.

Keep from food before killing a sufficient length of time so that the crop will be nearly or quite empty, as full crops are quite detrimental.

The best mode of killing is by opening the neck veins, though the head may be cut off, but, if so, the skin should be drawn over the neck bone and tied after dressing.

All poultry should be scalded just enough to make it pick easy. The water should be nearly boiling hot; dip the poultry in and raise it out two or three times, so as to scald evenly, then pick off all the quills, feathers, and pin feathers as quick as possible without breaking the skin. Don't rub them off, as that rubs off the thin outside skin, which injures the sale. Next, immediately before it cools, dip it into clean hot water; hold it in but a few seconds, then suddenly dip it into cold water for a few seconds more, then hang or lay it up to cool and dry.

The intestines or crop should not be drawn.

Be sure it is all entirely cool through and the surface dry before being packed.

Boxes are best to pack in, though barrels will do. Obtain bright rye straw, if possible, wheat or oat straw, if very bright and clean, will do, but is not as good. Shake out all the dust, place a layer in the box, then a layer of poultry, back up, with the legs flat on the straw; put a little of the straw next the sides of the box, then in the same manner alternate layers of straw and poultry. Stow very snug, so it can not move; put straw on the top, press on the lid, and nail strong. If the weather is warm, use plenty of dry straw.



WHAT CAN BE RAISED FROM A SMALL GARDEN.

We know a gentleman in this city who has a small garden which, after business hours, he takes special pleasure in cultivating with his own hands. A part of the garden near the house is devoted to flowers. The remainder is cultivated as a vegetable garden. The latter, by actual admeasurement, contains 231 square yards—equal to a little over 15 yards square, or about the twentieth part of an acre.

This is a very small garden, and it would seem impossible to obtain much from it. But the fact is few people have any idea how much a small plot of ground can be made to produce in a single season by good cultivation and a judicious *succession of crops*.

We can not undertake to enumerate everything which our friend raised from his little garden. Suffice it to say he had enough to supply his own table during the season with the choicest vegetables, and to present an extra well-grown specimen occasionally to his friends; and he has now in the cellar a good supply of celery, and some cabbage, carrots, beets, etc.

As soon as the weather would permit in the spring, he sowed, on a warm southern border, seeds of cauliflower, cabbage, lettuce, radish, red pepper, mustard and cress. Later in the season he sowed on this same border cucumbers, melons, etc., to occupy the ground after the other crops had been eaten or transplanted. Along the whole length of the border, which is 35 yards long, he planted a row of early Kent peas. From this he had several meals by the 20th of June, and the peas were then removed to make way for the cucumbers and melons, which by this time were beginning to run. He also trained some tomato plants against the tight board fence.

Five rows of dwarf peas, each 10 yards long, were also set out on another plot, and between the rows cauliflowers and cabbages were planted. The peas produced well, and as soon as they were removed, trenches were dug and celery plants set out between the rows of cabbages, in the place previously occupied by the peas. Some of the cabbages were cut early, and the stalks produced a second crop of small heads, two, three and four on each stalk. Late cabbage plants were also set out in the places occupied by the early Paris cauliflowers, and thus a few good heads were obtained from between the rows of celery.

Let us enumerate. There were on this little plot, which would ordinarily have been devoted exclusively to the peas, first, a full crop of peas; second, a full crop of early cabbages and cauliflowers; third, a full crop of celery; fourth, a good crop of second heads of cabbage,

and fifth, a few large heads of late cabbage between the rows of celery. Five crops in one season, and *all well grown!*

On another plots, 10 yards wide, he had two rows of early Short-horn carrots, two rows of onions, one row of parsneps, two rows of beets, and one row of vegetable oysters. Then a row of early Paris cauliflowers, and next a trench of celery, and the remainder of the plot was occupied with melons and cucumbers. The latter, on the one side of the celery trench and the cauliflowers on the other, were off in time to allow the celery to be earthed up.

There was not a poorly grown vegetable in the garden. The carrots were sown quite thick, and thinned out as they got large enough for the table. In this way the family, consisting of six persons, had a full supply during the summer, and there were over two bushels to put in the cellar in the autumn. So of the beets and onions. They were thinned out as wanted for the table and there were enough beets left for winter use and plenty of small onions for pickling.

He had over 100 head of cauliflowers, and cabbages "too numerous to mention." Cucumbers enough to eat, to pickle and to give away. He had at least a hundred good, ripe, delicious melons, and a few for mangoes. He had a hundred and twenty large, fine, well-blanchd sticks of celery, and as many more, planted later, that may be classed as "fair to good."

We have not mentioned all that our friend had in his little garden, but enough to show how much can be obtained from a few square rods of earth. He used no barn-yard manure at all, but gave the plants a liberal dressing of superphosphate of lime and sulphate of ammonia. He attributes his success, however, more to *thorough cultivation* than to these artificial fertilizers. The ground was well spaded in the spring and constantly hoed during the summer—hoing being our friend's recreation and his delight.

GREAT HORTICULTURAL SHOW IN ENGLAND.

The last number of the *Gardeners' Chronicle* describes in glowing terms the show at the great November meeting of the Royal Horticultural Society. It says "the chrysanthemums were superb as a whole, and snited the fine conservatory in which they were shown. We must, indeed, except some specimens trained and pruned to imitate trees, for which the plant is quite unsuitable; this, however, was an example of bad taste, not of bad gardening. Some pyramids were cleverly managed, but the hero of the day was an enormous bush of the lilac Christine. From top to bottom it was of faultless beauty. Of the fruit we shall only say that it did honor to English skill, especially the grapes, which for color, size, and thoroughly good management were in general unsurpassable. If the French, under their brighter sun and warmer soil, could beat us with Chasselas de Fontainebleau, we might claim the victory with Muscats and Black Hamburghs. In other words, in grapes we do with skill alone what our clever neighbors achieve with climate and skill combined. What their climate does for them was unmistakably shown by a most remarkable exhibition of French apples and pears. Under no con-

favorable circumstances can England produce such White Calville apples or Uvedale's St. Germain pears as appeared in Mr. LEWIS SOLOMON's collection. They were the amazement of most visitors, and the admiration of all. In conclusion, we may observe that nothing could prove more unmistakably the mighty progress that gardening is making here, than such an exhibition as that of Wednesday and Thursday last; and we trust that when people from all the regions of the earth shall next year flock to the grand exhibitions at Kensington, they may find our English power still more worthily represented."

A new white chrysanthemum, Lady H. St. Clair, is highly praised. The flowers were 4 inches in diameter and $3\frac{1}{4}$ inches in depth, the center being very high and full, and well incurved.

Another novelty among the chrysanthemums was a canvas-striped sport called Striped Queen. The flowers were flaked with purple on a bluish white ground.

A FRENCHMAN ON ENGLISH HORTICULTURE.

THE *Journal of the Societe Imperiale et Centrale d'Horticulture* of Paris, contains a report of the Spring Exhibition of the Royal Horticultural Society of England from the pen of M. MOREL, which speaks in the highest terms of the skill of English gardeners.

The stove and greenhouse plants he found more than a yard (*metre*) in diameter, and high in proportion. The effect was grand and charming. The brilliant exhibition of orchids was above all praise. It was impossible to weary in examining the beautiful Chinese azaleas. They were all brought to a pyramidal form about a yard through at the base, and nearly two yards high.

Of the roses in pots, M. MOREL remarks, "I thought that France was the land of the Roses, and I little expected to find in London rose trees whose cultivation and exquisite forms surpassed all that I have ever imagined. Nevertheless what I saw there, exhibited in pots about 18 inches in diameter, were at least a yard through at the base, and were from a yard and a half to two yards high. These plants were clothed with flowers evenly distributed all over. I could not but admire the skill of English gardeners; their productions were beyond all praise.

The show of pelargoniums quite dazzled M. MOREL. They formed one mass (*boquet*) of flowers, among which leaves could scarcely be perceived.

Fruit was very brilliant, especially peaches. Strawberries, particularly the British Queen, were magnificent. Grapes admirable. "Upon the whole," he says, "the fruit show proved beyond question the superiority of English forcing gardeners, who have no such assistance as our climate gives us."

"DO RATS EAT GRAPES?"—The *Gardeners' Chronicle* recently asked this question, and answers were immediately received from several correspondents, all agreeing that they did. They have been repeatedly caught in the very act. It appears that they climb up the vines and eat the berries. We have known instances where mice have proved very troublesome to grapes in the greenhouse. Both rats and mice are also very fond of strawberries.

THE WHITE AND GRAY DOYENNE PEAR IN FRANCE—ARE THEY THE SAME VARIETY?

The failure of the Doyenne to sustain its long established reputation is quite pathetically lamented in an article by M. LANGOULET in the *Revue Horticole*. He says that old pear fanciers, like himself, remember that formerly it was "only necessary to buy at a very low price a Doyenne pear, transplant it badly, and abandon it to the generosity of the climate, in order to gather annually a harvest of fruit, so perfect in tint, so melting, so juicy, so delicately perfumed, that our best modern varieties leave to the old 'pear tasters' (*degustateurs*) something to regret."

"Fruit," he says, "does not degenerate. Science has decided this, but owing to some alteration, either in culture or in some of the various conditions which affect the well being of the tree, an alteration has occurred in the fruit, and now, in place of the old Doyenne, we eat a few small, rough, stunted, cracked, worm-eaten, and coarse-grained, with the consoling conviction that it is the tree which has degenerated, and not the fruit. The principle is saved, but the reality is sad."

M. LANGOULET evidently retains a sincere affection for the Doyenne, and after this introduction discusses at some length the question whether the White and Gray Doyenne are the same pear, or distinct varieties. Several instances are given where both pears are found upon the same branch. In one or two cases a tree of each variety stood very near each other, but it is not possible that this could have made any difference, if they are really distinct in their origin. In one case a White Doyenne (Virgalieu) tree bore on one branch at the base a Gray Doyenne, and at the extremity two White Doyennes, one of the latter being perfectly uniform in tint. Several authorities are quoted upon the same subject. Are there any instances where this has occurred in this country? The Gray Doyenne is the hardier pear of the two, and is not as subject to disease as the White Doyenne in some localities. M. LANGOULET also mentions that he had seen a Duchesse d'Angouleme tree which bore pears uniformly russet, and that it was cultivated as a new variety!

DOUBLE GLAZING IN GREENHOUSES.—A correspondent of the *London Gardeners' Chronicle* thinks there would be great advantage in double glazing greenhouses; that is, placing glass beneath glass, so as to have motionless air between them. The idea strikes us favorably. It is well known that confined air is one of the very best non-conductors of heat. Double windows keep a room warm with much less fuel. The extra expense is the only drawback, but in our cold climate, and where coal is high, the saving of fuel would soon more than pay for it. We should, too, it is thought, avoid "drip" from the condensed moisture on the glass.

PROPAGATION OF PLANT LICE.—Those who were troubled as much as we were last year with aphides on cauliflower and other vegetables, as well as on trees and grain, will not be surprised at the statement of Mr. CURTIS, a well known English entomologist, that the offspring from a single egg in the course of seven generations amounts to 729,000,000!



MOSS ROSES.

"The angel of the flowers one day
Beneath a Rose-tree sleeping lay;
That Spirit to whose charge is given
To bathe young buds in dews from heaven;
Awaking from his light repose,
The angel whispered to the Rose
'O, fondest object of my care,
Still fairest found where all are fair,
For the sweet shade thou'st given to me;
Ask what thou wilt, 'tis granted thee.'
'Then,' said the Rose, with deepened glow,
'On me another grace bestow.'
The Spirit paused in silent thought;
What grace was there that flower had not!
'Twas but a moment; o'er the Rose
A veil of moss the angel throws;
And, robed in nature's simplest weed,
Could there a flower that Rose exceed?"

The constant acquisitions we are receiving to this as well as to all the other classes of roses, many of which are really valuable, may cause a partial neglect of old favorites, and we introduce to our readers a cut of the common moss rose, at this time assuring them that this variety is worthy of their best care. It is not yet superseded, and its qualities are such that it must be a good rose in every respect that will ever lay this one on the shelf. In the bud, half expanded, or full blown, it is a

gem, and if we were restricted to a single sort, this one should be the selection.

It is hardy, a vigorous grower, a profuse bloomer, and the expanded flowers are full and double and very fragrant; the calyx is large, leafy, and quite mossy.

For a collection of moss roses, we would recommend the following as being among the best:

Countess of Murinaise—pure white, large, full and double, and blooms in clusters.

Crillata—bud crested and very mossy—beautiful.

Glory of the Mosses—light rose color, large, full and double—very beautiful.

Jean Hachette—medium size, bluish violet spotted with white, blooms in clusters.

Marbree—medium size, rose color mottled with white—very beautiful.

Partout, or Moss Moss—profusely covered with moss—the most mossy of all.

Princesse Adelaide—very double and full of a purplish red color, becoming pale—handsome and of a most vigorous habit.

Blanche Perpetual—pure white, producing its flowers during a long period, very desirable, but only good in the bud, when it is first rate.

Alfred Dalmus—quite double, rose color, blooms twice during the season.

Herman Kegel—another so-called perpetual; violet crimson, medium size, vigorous and a free bloomer.

Salet—brilliant rose, medium size, a vigorous grower and free bloomer.

This list might be further extended without exhausting the list of good moss roses, but the varieties above described can be relied upon as of first quality.

Like the other roses, the mosses require a rich soil, good cultivation, a plentiful supply of water during the period of flowering and the proper attention paid to pruning. In reference to this matter, a general hint only can be given at this time. A judicious use of the knife in the spring will remove many of the weak shoots of the previous year's growth; cut back the main stems, and thus secure to the plant a new growth of strong, healthy wood for the new bloom.

IN-DOOR GARDENING.—An English lady, Miss MALING, has written an interesting and instructive little book on this subject, which we should be glad to see reprinted and extensively circulated in this country. If we are ever to excel in the culture of flowers, the ladies of America must take the initiative. At the late Show of the Royal Horticultural Society Miss MALING exhibited a glazed parallelogram case; 46 inches long by 20 inches wide, filled with flowers, which attracted marked attention.

PLANTING APPLE TREES.

NEVER before have apple trees been so extensively planted in this section as during the past autumn. Farmers are beginning to realize that raising good fruit is a profitable business. The apple crop the past season was not as large as in 1860, but the prices, notwithstanding the high rates of freight, have been good, and it is said that the fruit growers have realized as much profit from their crop as in the previous more plentiful years. We hear of cases where \$400 an acre has been paid for Baldwin apples on the trees—the buyer to gather the fruit.

An intelligent farmer a few days since told us that he was going to plant 1,000 Baldwin apple trees, and remarked that his only regret was that he had not done so many years ago. He had no doubt that this and other winter varieties will always command a fair price. Even if they do not, he thought, "it would pay to grow them to feed cattle and hogs."

The varieties planted most extensively are the Baldwin, the Golden and Roxbury Russet, and Rhode Island Greening.

There can be no doubt that the soil and climate of Western New York are very favorable to the growth of apples, pears, etc. The fruit is exceedingly fair, and will always command good prices. A considerable quantity of winter apples have been sent from here to England. We have no doubt that those who have exercised due care in assorting out all poor and bruised fruit, and in seeing that they have been carefully handled, will realize handsome profits from their investments.

Many apples are also sent from this neighborhood to Canada. The variety which commands the highest price in Montreal is the Pomme Grise. It will readily bring \$4.50 to \$5.00 per barrel, while the Baldwin sells for \$2.50. It is a most excellent apple, but of not sufficient size to suit the popular demand with us. It is a favorite with all who judge apples by the taste rather than by the eye. The Ourassa is also a popular apple in Montreal. Both these varieties bear well in this section and should be more generally planted, especially by all who expect to send apples to Canada.

RENOVATION OF OLD GRAPE VINES.

UNDER this heading, in the *Journal d'Agriculture Pratique*, of September 20th, appeared a long letter from M. DE LAISTRE, giving an account of the successful operation of the new system of cultivating vines which is creating a complete revolution in the French vineyards. The letter is too long to transfer entire to our columns, but we give a resume of it.

His vines were twelve or fifteen years old, and had become almost barren, but after reading a book by Dr. FULES GUYOT, he determined to try his system. In the first place, a trench was opened around each principal stock from which shoots had sprung up, of a depth sufficient to disengage all the shoots. Then one was selected to form the stock for the new culture. Then another as a companion for the first. The remaining shoots were all cut down and destroyed. Then a trench was opened in a line with a row of vines sufficiently large to enable the workman to manure the two shoots at the same

time. The branches which come from these shoots are trained vertically upon a simple wire trellis. The second year after this, M. DE LAISTRE'S vines gave him a most magnificent crop. His vines have borne a crop estimated at an average of three lbs. of fruit to each vine stock, and he has obtained the "high approbation of the Agricultural Society of Poitiers."

This seems a very simple mode of culture, but it involves a comparatively new principle which is but little practiced here, and, under the name of the "renewal system," has excited some discussion in the various horticultural societies and periodicals.

PEAR CULTURE IN THE NORTHWEST.

EDS. GENESEE FARMER: No part of fruit-growing has been more neglected, perhaps, in this country than that of the pear, and no good assignable reason. Notwithstanding we have a soil and a climate that are adapted to the production of most of the varieties of the best pears, yet a pear tree is seldom found among the farming community. That pear trees have been planted to a considerable extent, and have proved a failure, is no argument against pear culture. They have generally come to us in bad order, of varieties frequently not adapted to our climate, and set in bad order, and little cared for when set, and a consequent failure must necessarily follow. I will give my method and success, believing that it may dispel the skepticism of some on this subject.

In 1856 I ordered from a reliable nursery in Central New York sixty pear trees of first quality, selecting the varieties mainly from those that had been tried here and found "hardy" and "half hardy," and some that had been reported *tender*, and others that had not been reported as either, including thirty varieties; about 50 standard, and the remainder dwarf on quince stock.

These were planted on high, dry, open, unprotected prairie land, that had been deeply trenched, and the stiff loam composing the subsoil thoroughly mixed with the surface soil. An underdrain was made $3\frac{1}{2}$ feet deep, running lengthwise the plot of land occupied, also a slight surface drainage. I regarded the mixture of the stiff loam which composed the subsoil with the surface as essential to the health and vigor of the pear tree. I planted them 12 feet apart each way, and have kept the land under cultivation with vegetable crops, pruning them lightly, cutting down the tops of the standard trees to prevent too high a growth, and thoroughly using the knife on the dwarfs, keeping a low pyramidal head. Last year three of the trees were loaded with pears, two of them being Bartlett (standard). This year I found that 12 of the varieties produced specimens of the finest pears. Of the Bartletts three were standard and two dwarfs. One of the standards produced nearly a half bushel of fruit. The Swan's Orange proves a very hardy, vigorous tree, and fruited well. The Oswego Beurre, Dearborn's Seedling, Seckel, White Doyenne, Flemish Beauty, Stevens' Genesee, Buffam, Beurre Bosc, Duchesse d'Angouleme, and Beurre d'Arenberg all produced fruit this year, and were strong healthy trees. A few of my trees were injured with the *frost blight* in the winter of 1859 and 1860, and last fall (1860) I tied around them a part of a mat covering; the residue I covered with long rye-straw, tying

it with a straw band, and I have seen no new cases of blight this year. This I regard as a necessary protection. Thus far the dwarf trees, except the Seckel, show as much health and vigor, as the same varieties on the standard. The varieties on both dwarf and standard are Flemish Beauty, Beurre d'Arenberg, Beurre Diel, Seckel, and Bartlett.

Feeling a good degree of assurance of success in pear culture, I am now preparing to set an orchard of 200 trees. As I have a gravel formation four feet below the surface, I underdrain each tree. First I dig a hole two feet in depth, and five to six feet in diameter, and from the bottom of this hole I bore with a post auger to the gravel, and fill the latter hole with small cobblestones, and fill the large one with the mixture of the subsoil and surface. This makes a substantial soil, adapted not only to the pear, but also to the apple, plum, and cherry. Underdraining with tile or cobblestones three and a half feet deep will be sufficient for any soil, but if the soil is naturally wet the ditches should be made not exceeding 24 feet apart. Dry soils, where water does not stand near the surface in the spring, and where heavy rains have fallen, do not need underdraining. Pears are succeeding in this vicinity admirably in gravel soils, particularly the Flemish Beauty, which seems to flourish everywhere regardless of soil or climate, and is doubtless one of the most profitable market varieties. With the pear, as with all other fruit trees, no stunted tree is worth planting or worth retaining in the orchard when it becomes stunted. No fruit tree produces fruit younger or more abundantly when grown, or lives longer. I know where stands a pear tree of more than 100 years' bearing, which has never been known to be without annual crops. It stands on the lands of EBERNEZER SCOTFIELD, in Poundridge, Westchester county, N. Y. The pear tree described by the Rev. H. W. BRECHER in this State, about ten miles from Vincennes in Indiana, produced in 1840 one hundred and eighty bushels, and in 1844 one hundred and forty bushels of pears. I have also seen a tree of but two years from the bud, and no larger than a good riding whip, produce and ripen three pears. The tree was sustained by a stake. For both profit and luxury every man who has a garden should have several pear trees.

Elgin, Ill.

D. C. S.

OSAGE ORANGE PREMIUM HEDGE.

Mr. C. BARTON, of Tazewell county, Illinois, who entered his Osage Orange Hedge for a premium, presented the following statement in relation to its management:

In the year 1858 I purchased hedge plants to the amount of ten dollars, which I set out, making one hundred rods of hedge. The first year, the setting and cultivating cost me six dollars. The second year, cultivating and trimming cost me two dollars; the third year, trimming, two dollars.

PREPARING GROUND AND SETTING. — I plowed a large land on the side of the field on which I set my hedge, so I had neither the ridge nor the dead furrow for my hedge row, but level ground; then with a common plow I made a furrow in which I set my hedge, placing the plants about four inches apart, and covered the ground so as to leave the ground perfectly level.

CULTIVATING. — I took a double shovel-plow, and as often as the weeds sprang up, or the ground became baked, I plowed it up, keeping the ground level.

TRIMMING. — I did no trimming the first year. The second year I trimmed once, which I did about the first

of April, cutting the hedge about three inches above the ground. The third year I trimmed twice; first, about the first of April, cutting the hedge about one foot from the ground. Second, the first of July, cutting about three feet above ground; after which, my hedge has been completely adequate to turn all my stock.

Of the hedge, the committee say: We do hereby certify that the above-named hedge has been well cultivated, that it is a good, substantial fence, and that it is worthy of premium from our County Agricultural Society.

SPUR PRUNING OF FRUIT TREES.

An article on this subject in the London *Florist* is so well calculated to be useful to all who cultivate fruit trees that we give a part of it, hoping that it will lead to the practice of this much neglected, but much needed kind of pruning. The last season was such a long and dry one that the wood of the trees ripened very thoroughly, and as the fruit crop in many parts of the country was very light the past year, there is every reason for anticipating a heavy crop for the ensuing season.

Over-bearing is an evil to be guarded against, and spur-pruning and thinning of the fruit are the best means of preventing this. The former has a decided advantage over the latter, as it can be done when there is no other work to occupy the attention of the cultivator.

It is entirely unnecessary to have trees bent down one year with the weight of the fruit, and the next year no fruit at all, or else a very inferior crop. Of course, in extraordinary seasons, like the one we have just passed through, nothing will prove effectual, but in nine years out of ten it is possible to have a good crop of fruit by carefully attending to the trees. Go where you may, you will find old trees generally full of old long spurs, with ten times more buds than are necessary, and so crowded that scarcely any sun and air can get to them. Every useless bud which is allowed to expand exhausts the tree and deteriorates the quality of the fruit. When the spurs are crowded, the longest and weakest should be cut clear away, and in those that are left the buds should be well thinned out. All the weak buds and those in the end of the spurs should be cut clean off, leaving the roundest and most plump, and take particular care of those at the base of the spurs. When pruned, the buds should be left at such a distance from each other that the sun and air should have full influence upon them. On old trees that have been neglected, spur-pruning can hardly be too freely carried out. We have ourselves operated largely on old trees of all kinds a few years ago. From one old apple-tree, and not a very large one, either, nearly a cart-load of wood was cut, and with the most encouraging results. The trees have regained fresh vigor, and the fruit has been much finer than ever before; and where the habit of the tree had been to bear malformed, inferior fruit, we have gathered as fine and well-formed specimens as could be desired.

People generally blame the season, not their own bad management for the miserable state of their own orchards. They say that "the springs are so precarious that there is no hope of having a good crop of fruit." If they will try spur-pruning and thinning the fruit, never allow over-bearing, and give the trees a moderate amount of attention, they will find that the weather is not altogether in fault.

All trees that have been any way neglected should at once be gone over. The center of the trees should be all cleared out, and all shoots when crowded should be all thinned. This done, the shoots should be carefully unpruned, leaving the best buds. The result will be next year a crop of fruit much superior in size and quantity to any that has been produced for years.

CULTURE OF THE PEACH IN THE MIDDLE STATES.

THE editor of the Baltimore *Rural Register*, who has had considerable experience in the cultivation of peach trees, remarks that orchards in the Middle States have not borne good crops of late years, and that many orchards in locations once famous for the size and qualities of the peaches grown there have either died out or become worthless.

It is not always easy to account for the causes that have produced this state of things, for they necessarily vary in many instances, and the conditions under which the orchards were cultivated or neglected are not usually known. Late spring frosts also, and intervals of warm weather too early in the season have not unfrequently led to the loss of this delicious fruit, and he has also observed that many of the newer peach orchards have been planted in situations and on soils where experience has shown that peaches will not flourish. The failure of a crop through unseasonable weather can not, of course, be always prevented, although there are occasions when, as in the case of late spring frosts, the probability of a fair return of fruit may be secured by resorting to the same means which were adopted for that purpose by some of the older and more successful peach-growers.

The peach flourishes best in a light, loose soil, rather sandy than otherwise, and, as a general rule, on dry uplands better than on the slopes of hills, inclined to valleys, through which small streams of water flow, and through which cold currents of air are constantly sweeping—such valleys, we mean, as are subject to have their vegetation injured by those early and late frosts which do not reach the upland plateaus. Of course, where large bodies of water modify the temperature, as on the eastern and western shores of Maryland, the level sandy soils of such districts will grow the peach to perfection, and without much hazard. Elsewhere a sandy or gravelly soil, well elevated above surrounding valleys, and therefore having a dry atmosphere, is the best fitted for the culture of the peach. The orchard should, however, be protected from the northwestern winds either by a higher range of hills or by a belt of woodland. If late frosts are to be apprehended, heaps of brush and weeds should be formed on the windward side, and a smothering fire made so as to let the smoke drift among the trees during the night. During high winds this precaution is not necessary, as it is only during moderately calm nights that the frost is apt to injure the young fruit. No crops should ever be grown in a peach orchard except such as are subject to the hoe—in other words, none but root crops and corn. These may occasionally be grown, but it is far better to plow up the peach orchard every fall, let it lay rough through the winter, and cultivate it throughout the following season without growing any crop on it whatever. If, in addition to these simple rules, the trees are judiciously pruned;

are worked annually about their roots, when half a peck of wood ashes should be spread around the stem of each tree, and if they are also carefully freed of the peach worm by following it into its recesses under the bark at the base of the tree, we should hear much less frequently of the failure of the crop.

SCRUBBING AND WASHING TREES.

THE *Germantown Telegraph* thinks early winter the best time for scraping and washing the trunks of trees.

It is well known to all observing fruit growers that the loose bark of trees is the winter quarters of myriads of insects, where they securely remain until the ensuing spring, when the warm, genial weather warrants them to quit their cozy homes and begin their destructive operations for the season. We have found a narrow saw, rather fine toothed, to be an excellent tool in rasping off the superfluous bark. It accomplishes it more uniformly than a hoe, trowel, or other scraper; a trowel, or a short handled hoe, however, is very good, when the other may not be possessed. After the bark is removed, the trunks should be washed thoroughly with a preparation of whale-oil soap and water, say in the proportion of a pound of the soap to four gallons of water. It can be applied to large trees with a hickory broom or a stiff whitewash brush, and to small trees, especially dwarfs, with the hand scrub-brush. Sickly trees, which can at this season be easily detected by being covered with a species of fungi, or perhaps more properly a peculiar insectivorous deposit, should be scrubbed so as to completely remove this. The mixture will of itself benefit the tree, while the removal from the stem of all extraneous and injurious substances, will give to it new health and vigor the ensuing season—in some instances to a surprising extent. When whale-oil soap is not obtainable, lye may be used, but it should not be very strong.

DRY CLAY AS GOOD AS SULPHUR FOR MILDEW ON THE GRAPE.—P. LAZARIS, of Athens, gives the results of several years' experiments which he has made with various substances for arresting the oidium or mildew on the grape. He thinks any dried and pulverized substance which does not injure the fruit or foliage of the vine will answer the purpose. He prefers dried clay. It should be free from sand or gravel, dried in the sun for a few hours, and then pulverized very finely and sifted, and then applied the same way as sulphur.

SULPHUR FOR GRAPE MILDEW IN FRANCE.—"M. le docteur Guyot" has received from the Minister of Agriculture a commission to examine into the state of vineyards in France, and in consequence of his report, 500 francs have been given by the Government to be expended in the purchase of sulphur, which is to be given to the vine-growers who can not afford to procure it for themselves. This shows the importance attached to the use of sulphur in arresting mildew on grape-vines.

PEACHES IN MINNESOTA.—The *Minnesota Farmer and Gardener* says: "The peaches grown about Saint Paul are all protected in the winter by training the branches near the ground and covering in the fall."

Ladies' Department.

ARMY MITTENS.

The following directions for knitting army mittens will be interesting to many of the fair readers of the *Genesee Farmer*. The accompanying cut is half the length and half the breadth of the mitten.

Use needles No. 15, and grey or blue mixed yarn No. 20, or coarser. Any color except white will do.

Length of mitten, 11 to 11½ inches. Width over palm, 4¼ to 4½ inches. The pair should weigh at least three ounces. They may be either knitted or crocheted, but the former are the warmest and most durable. It is advisable to knit a finger on the left as well as on the right hand mitten, so that they can be used on either hand.

22 stitches on each needle of No. 20 yarn; or more or less in proportion, if the yarn be finer or coarser, to make the mitten FOUR TIMES the size of the pattern. Rib 2 and 2, 2½ inches for cuff.

Begin thumb at.....A by making two stitches for seams, and widen 2 between seams every 4 times round, until you have 20.

Drop the 20 stitches at.....B and cast on 8.

Drop 16 stitches at.....C for finger and cast on 8.

D Begin to narrow keeping the width well to the end.

HOME-MADE PICTURE FRAMES AND HANGING BASKETS.

First get a carpenter to saw out a frame of the shape you wish. Gather together some pine cones, and a number of different kinds, such as Brazil nuts, hazel nuts, hickory nuts, almonds, acorns, and the like. Dark colored nuts are generally considered best.

Take some of the largest pine cones and cut the leaves off, glue them around the small end of a cone or the end of an acorn, in the shape of a rose. One of these leaves of the frame will do. Then glue thickly around the outer and inner edges of the frame these leaves of the pine cones, and fill in the remaining spaces with the nuts, small cones and pieces of leather made to imitate oak leaves as profusely as possible, leaving no part of the frame uncovered. Good taste in arranging them will, of course, add to the beauty of the frame when finished. After this is done, glue around the outer edge of the frame some of the smaller cones so as to extend over the edge. A bunch of raisins on each side will sometimes add to the appearance, but good taste will dictate as to any additional ornament.

After the glue is dry the whole should be varnished with a soft brush at least twice, with good furniture varnish, and left to get perfectly dry before being exposed to the dust. They should be covered when the room is swept, as the dust is very difficult to remove.

Some prefer a simple piece of pasteboard cut into the desired shape, but such a frame is liable to bend and then loosen the pieces glued to it. It will do to make the first trial on. The nicest frames are made on foundation, swelled from the outer edge toward the center. The shape of the foundation makes a great difference in the appearance of the frame.

The glue should be of the best kind and kept quite hot while in use. A great variety of material may be used in making these frames, which are quite pretty, and cost only about one fourth the price usually asked for them where they are sold.

The baskets for dried flowers are made in the same way on cocoanut shells for a foundation. The smaller ones should be used for this purpose.

WHAT THE LADIES WEAR.—A novelty in petticoats has recently been adopted among fashionable ladies in England. For all but dress, the white petticoat has been discarded for one of alpaca; and these have a great advantage over the linen or cotton ones, inasmuch as they are lighter, and do not lose their stiffness. Of course, it is necessary that if the dress be a grenadine, barege, or other clear texture, the petticoat must be of the same color. They are made very full and gored, and have a broad black ribbon or velvet above the hem; sometimes there is a trimming of gathered ribbon put on in vandykes. The dresses are invariably caught up at the side, to show this under petticoat. Where it is not necessary to match the tint of the dress, a stone color is the best shade for wear. These petticoats will certainly last through the winter, their usefulness being their chief recommendation; the material never sinking into folds, however long they may be worn.

MUSK.—When JUSTINIAN built what is now the mosque of St. Sophia, in 538, the mortar was charged with musk, and to this day, after the lapse of thirteen centuries, the atmosphere is filled with the odor.

KINDLING WOOD.—Nothing is more unpleasant than to get up on a cold morning and find, on going to light the fire, that there is no kindling wood. See to it that there is always a supply on hand.

Miscellaneous.

POINTS OF A SHORTHORN COW.

The following features constitute, I trow, the bean-ideal of a Shorthorn Cow:—
 Frame massive, round, deep-barreled and straight-backed;
 hind quarters level, lengthy, and well packed;
 highs wide, fleshed inwards, plumb almost to hock;
 wrist deep, conjoining thighs in one square block;
 loin broad and flat, thick-fleshed, and free from dip;
 neck ribs "well home," arched even with the hip;
 lips flush with back, soft-cushioned and not too wide;
 flanks full and deep, well forward on the side;
 fore-ribs well fleshed, and rounded like a drum;
 fore-flanks that even with the elbow come;
 top "barreled," flush with shoulder and with side;
 with large and round—not deep alone, but wide;
 shoulder sloped back, thick-covered, wide at chine;
 points snug, well-fleshed, to dewlap tapering fine;
 neck vein filled up to well-clothed shoulder-point;
 turn full above, turned in at elbow-joint;
 legs short and straight, fine-boned "neath hock and knee;
 belly cylindrical, from drooping free;
 chest wide between the legs, with downward sweep;
 brisket round, massive, prominent and deep;
 neck fine at head, fast thickening toward its base;
 head small, scope wide, fine muzzle, and dishd face;
 eyes prominent and bright, yet soft and mild;
 horns waxy, clear, of medium size, *upright*;
 tail fine, neat bung, rectangular with back;
 hide soft, substantial, yielding, but not slack;
 hair lustrous, fine, thick-set, of color smart;
 tailer well forward, with teats wide apart;
 these points, proportioned well, delight the eye
 Of grazer, dairyman, and passer-by;
 And these to more fastidious minds convey
 Appearance stylish, feminine and gay.

AN ENGLISH FARMER'S WIFE.—In an article on English agriculture in the Patent Office Report, the Hon. H. F. B. (then, of New Hampshire, remarks:

In his family an English farmer upon a large farm lives very much in the style of the wealthiest New England land owners. The same fact is observable there as here; at the wife and daughters, by some means, acquire a more finished education than the men, and conduct their household affairs with grace and dignity. * * *

* * * With servants enough to relieve her of the ruggedness of hard labor, the farmer's wife gives careful personal attention to her household, and has leisure to entertain handsomely the friends and guests of the family.

FEEDING AN ARMY.—To feed the 600,000 troops now in the Union army there is required *each month* 14,625,000 pounds of pork, or 24,375,000 pounds of fresh beef; 36,994 barrels of flour; 48,750 bushels of beans, or 1,050,000 pounds of rice; 1,950,000 pounds of coffee; 882,000 pounds of sugar; 195,000 gallons of vinegar; 2,449 bushels of salt; 8,580,000 pounds of potatoes. The supply of candles is 292,500 pounds each week, and of soap 780,000 pounds.

A BIG SOAP KETTLE.—B. T. BABBITT, of New York, the well known soap and saleratus manufacturer, has erected a tub capable of holding 250 tons of soap! The cost for the grease alone in a single charge is \$20,000. Steam is employed for heating it; and 3,000 feet of one-inch pipe, coiled on the bottom, are required for this purpose. Mr. B., with his facilities for cooking, could furnish 250,000 soldiers with two pounds of good bean-soup in one installment.

An idler boasted to a farmer of his ancient family, laying much stress upon his having descended from an illustrious man who had lived several centuries ago. "So much the worse for you," replied the farmer; "for we find the older the seed the poorer the crop."

MAN-EATING HYPENAS.—There are man-eaters among the hyenas, and these hominivorous animals are greatly dreaded on account of the exceeding stealthiness and craft with which they achieve their object. They very seldom endeavor to destroy the adult men and women, but limit their attacks to the young and defenseless children. On dark nights, the hyena is greatly to be feared, for he can be guided to his prey by the light of the nocturnal fires, which do not daunt an animal that is possessed by this fearful spirit of destructiveness, and at the same time can make his cautious approach unseen. As the family are lying at night, buried in sleep, the hyena prowls round the enclosure, and, on finding a weak spot, the animal pushes aside the wattle bands of which the fence is made, and quietly creeps through the breach. Between the human inhabitants and the tence, the cattle are picketed by night, and would form an easy prey to the hyena, if he chose to attack them. But he slips cautiously amid the sleeping beasts, and makes his way to the spot where lies a young child, wrapped in deep slumber. Employing the same silent caution, the hyena quietly withdraws the sleeping child from the protecting cloak of its mother, and makes its escape with its prey before it can be intercepted. With such marvellous caution does this animal act, that it has often been known to remove an infant from the house without even giving the alarm.—*Routledge's Illustrated Natural History.*

THE HORSE AND THE LION.—There were some horses on board belonging to Major KEMBALL, the Consul General at Bagdad, one of which got loose and leaped overboard just at dawn. The steamer was then about half way to Bagdad, getting under weigh after anchoring as usual for the night. The horse was not missed for half an hour, but was then descried ashore in what seemed very unpleasant proximity to a noble lion. The lion circled round and round him, always closing in. The horse remained motionless, beyond turning his head sufficiently to watch the lion's movements. Suddenly the latter gave a tremendous bound, but the horse was too quick for him, and escaped with a slight scratch; but, instead of galloping away, he only went a hundred yards, and again stood still. The lion commenced his former tactics with a similar result, only his bound was less vigorous this time. The horse did not even yet take completely to his heels—he seemed either tied by some strange fascination, or inclined to tantalize an enemy, from whom a few minutes' canter would have entirely freed him. Again the lion commenced his circles; but ere they were narrowed to springing distance a party had landed from the steamer, and the instant the horse had descried them he came galloping down as fast as he could, while the lion stalked break-fastless away toward the jungle.—"The Persian War of 1856-1857," in *Blackwood's Magazine*.

PREVENTION OF SEA-SICKNESS.—Let a person on ship-board, when the vessel is bounding over the waves, seat himself, and take hold of a tumbler nearly filled with water or other liquid, and at the same time make an effort to prevent the liquid from running over by keeping the mouth of the glass horizontal, or nearly so. When doing this, from the motion of the vessel, his hand and arm will seem to be drawn into different positions, as if the glass were attracted by a powerful magnet. Continuing his efforts to keep the mouth of the glass horizontal, let him allow his hand, arm, and body to go through the various movements—as those observed in sawing, planing, pumping, throwing a quoit, &c.—which they will be impelled, without fatigue, almost irresistibly to perform; and he will find that this has the effect of preventing the giddiness and nausea that this rolling and tossing of the vessel have a tendency to produce in inexperienced voyagers.—*Athenæum*.

A FIRM in Scotland, celebrated for the manufacture of steel, has recently contracted to furnish the French Government with muskets so constructed that they will discharge *seriatim* through one barrel sixteen cartridges, by means of a slide containing sixteen chambers. When the contents of the slide are fired off, another loaded slide can be inserted by the soldier in a few seconds, by which thirty-two shots can be discharged in one minute. By drawing the trigger the chambers containing the charge adjust themselves to the barrel in succession. The model is furnished by the French Government.



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Look at the above table of contents for a single number of the *Genesee Farmer*. Our correspondents frequently remark that any single number of the *Farmer* is worth a whole year's subscription. We believe this to be true,

and we have therefore no hesitation in asking every one of our friends to exert their influence in extending its circulation among their neighbors and acquaintances. Will you, kind reader, see what you can do for us the present year? We can safely predict that you will not regret it.

Subscriptions for the present volume of the *Genesee Farmer* and *Rural Annual* are coming in rapidly. We desire to thank our agents and other friends, one and all for their kind efforts in our behalf. Let the good work go on.

NOTES ON THE WEATHER FROM NOVEMBER 15TH TO THE MIDDLE OF DECEMBER, 1861.—The pleasantness of the autumn has been prolonged more than usual, even into December. The average heat of the first half of November was 41.2°, and of the second half was 23.8°; and of the whole month, 37.5°, being only 0.4° below the mean for 24 years. The coldest morning was 22° on the 19th, and 34° at noon on three days, on the 16th, 24th and 28th. The highest heat at noon was 55° on the 5th, and the next highest noon was 50°. The rain of the month was only 1.43 inches. Slight snow on the 15th, more on the 22d and 23d; gale and snow storm on Lake Ontario on the 22d. Snow storm at Boston and in New England on the 25th, making sleighing in the East.

Canal not frozen in November, but open its whole length, which is a rare fact; it was frozen fast last year Nov. 25th. The papers say snow fell in London, England, Nov. 2d.

December opened with cool weather for four days. On the 3d, the temperature was 18° in the morning and 10° at 3 P. M., and the average of the day 16.7°—the first really cold day in the season. The next day was warmer, but still cold. This cold period extended over the country, was severe in Virginia, as our soldiers write, and water froze in their canteens, and snow fell there. Our great canal was frozen hard, and still harder on next day, the 4th. After two days of moderate weather, the warmest period of four days from the 7th to the 10th, known in twenty-five Decembers, the mean temperature of the 7th and 8th being 55.7°, of the 9th, 50°, and of the 10th, 60.7°, the noon heat being 66°, and in the evening 63°, the wind being southerly and strong in the evening; some rain at 11 P. M. A little after midnight, or at 12½ on the morning of the 11th, was a violent gale and rain from the West, and at 7 A. M. the temperature was 35°, being a fall of 25° in less than seven hours. The wind ceased, and the day was fine. The change from the warm, sultry or muggy weather to the elastic and buoyant air of this cooler day was very grateful. On the evening of the 10th, the barometer stood at 29.17, low enough to make us feel as if a weight was on us, and which was rapidly taken off by the change, as the barometer rose rapidly, and stood at 29.56 at 7 A. M. on the 11th, and at 29.93 at 9 P. M. The morning of the 12th was more delightful and the barometer above 30 inches.

The canal was free from ice on the 6th. Indian summer is seen, so far, only in this warm and slightly smoky weather already noticed.

TERMS OF THE GENESEE FARMER.—Single copies 50 cents a year; 5 copies, \$2; 8 copies, \$3, or 27½ cents each, invariably in advance. All subscriptions should be addressed to JOSEPH HARRIS, Rochester, N. Y. Money may be sent by mail at our risk.

Cash Prizes! Cash Prizes! Cash Prizes!

To get up a little emulation among our friends who act as agents for the *Genesee Farmer*, as well as to reward them for their efforts to increase our circulation, we offer the following exceedingly liberal list of Cash Prizes:

1. FIFTY DOLLARS, in Cash, will be paid to the person who sends us the largest number of subscribers for the present volume of the *Genesee Farmer* before the 15th day of January, 1862.
2. THIRTY DOLLARS in cash to the person who shall send the second highest number, as above.
3. TWENTY DOLLARS for the third list.
4. FIFTEEN DOLLARS for the fourth.
5. TEN DOLLARS for the fifth.
6. NINE DOLLARS for the sixth.
7. EIGHT DOLLARS for the seventh.
8. SEVEN DOLLARS for the eighth.
9. SIX DOLLARS for the ninth.
10. FIVE DOLLARS for the tenth.
11. FOUR DOLLARS for the eleventh.
12. THREE DOLLARS for the twelfth.
13. TWO DOLLARS for the thirteenth.
14. ONE DOLLAR for the fourteenth.

In competing for these prizes, it is not necessary that a club should be all at one post office, or sent in at one time. Send in the names as fast as they are obtained, accompanied by the money, 37½ cents each for the *Genesee Farmer* alone, or 50 cents each for the *Farmer* and *Rural Annual* together.

The names of the successful competitors, together with the number of subscribers sent, will be published in the February number of the *Farmer*, and the money immediately paid. Now let us see who will take the prizes.

THE RURAL ANNUAL AND HORTICULTURAL DIRECTORY FOR 1862.—Among the contents of the *Rural Annual* for this year will be found articles on the Culture of Apples, Peaches, Plums, Grapes, etc., with a list of good varieties; also of Strawberries, Raspberries, Currants, etc.; on Annuals and their Culture; on the Manufacture of Domestic Wines; on the Cultivation of Wheat, Barley, Oats, Rye, and Indian Corn; on Cutting Potatoes for Planting; on Harrowing Potatoes; Chinese Hogs; English Mutton Sheep; Making Hay; Covering Grass Land with Straw; Culture of Figs; on Poultry; on the Culture of the Peach in the Middle States; Fruit and Malacia; Protecting Plants from Frost; Summer Pruning Apples; Rules for Arranging Ornamental Grounds; Fire-proof Wash for Roofs, etc.; on Cider-Making; Seeding with Clover among Corn; to Kill Canada Thistles; Amount of Roots from Clover and Grasses; to Destroy Insects, the Poultry Mildew; Trimming Osage Orange Hedges; Cultivation of the White Bean; Moss on Roofs; Whitewash; a Novel Ice-House; Application of Manure; Toads and Bees; on the Cultivation of Dwarf and Standard Pears; Mulching the Currant; Mildew on the Grape; Spiraea and their Culture; Cold Graperies; When to Gather Grapes; Low-Headed Trees; the Delaware Grape; Strawberries; Aphides on Trees; Covering Grape-Vines in Winter; Aerating the Soil; Warts on Cattle; Cut Worm and Corn Grub Killer; Treatment of Milch Cows, etc., etc. Price 25 cents. Sent prepaid by mail to any address on the receipt of price. Address JOSEPH HARRIS, publisher of the *Genesee Farmer*, Rochester, N. Y.

SPECIFIC PREMIUMS.—As there are many of our Agent-friends who do not compete for the Cash Prizes, we offer the following list of Specific Premiums:

1. To every person who sends us EIGHT Subscribers, (at our lowest terms of thirty-seven and a half cents each,) we will send, postage paid, a copy of our beautiful twenty-five cent book, the *RURAL ANNUAL AND HORTICULTURAL DIRECTORY* for 1862.
2. To every person who sends us SIXTEEN subscribers, (at our lowest club terms of thirty-seven and a half cents each,) we will send one extra copy of the *GENESEE FARMER*, and one copy of the *RURAL ANNUAL*, prepaid, by mail.
3. To every person sending us TWENTY-FOUR subscribers, (as above,) we will send two extra copies of the *FARMER*, or two copies of the *RURAL ANNUAL* and one extra copy of the *FARMER*. Those who send more than twenty-four will probably take one of the Cash Prizes. If not, Specific Premiums will be sent in the same ratio as the above.

A TWENTY-FIVE CENT PREMIUM TO EACH SUBSCRIBER.—To each member of a club of eight subscribers for the *Genesee Farmer*, at 50 cents each, we will send, prepaid by mail, a copy of our beautiful twenty-five cent book, the *Rural Annual and Horticultural Directory* for 1862, as a present.

In other words, for \$4 we will send 8 copies of the *Genesee Farmer* and eight copies of the *Rural Annual*, together with an extra copy of the *Rural Annual* to the getter-up of the club. For \$8, we will send 16 copies of the *Genesee Farmer* and 16 copies of the *Rural Annual*, together with an extra copy of the *Farmer* and an extra copy of the *Rural Annual* to the person getting up the club.

TO OUR AGENTS.—We desire to compensate all our friends who act as agents for the *Farmer* and *Rural Annual*. See the list of Cash Prizes. Few, very few, compete for them. You can secure one of the highest if you will but try. Send on the names as fast as obtained, and the papers will be forwarded by return mail. We will cheerfully send extra copies of this number as specimens to all who desire them, without extra charge. We have also a few large showbills which will be sent prepaid, gratis, to all who can use them to advantage.

SHORT-HORNS AND SOUTH DOWNS.—JAMES O. SHELDON, Esq., of Geneva, N. Y., offers some of his Short-horns for sale in our advertising columns. Mr. S. has the finest herd of thorough-bred Short-horns in Western New York, and there are no better either in Europe or America. His South Down sheep also are unsurpassed. He has just received from Mr. RIGDON, of Sussex, England, the First Prize Yearling South Down Buck at the last Fair of the Royal Agricultural Society at Leeds.

EVERY-SUBSCRIBER OF THE GENESEE FARMER should have a copy of the *Rural Annual* for 1862. Price 25 cents. Sent prepaid by mail to any address. Every person getting up a club of eight subscribers for the *Genesee Farmer* will receive a copy of the *Rural Annual* for his trouble.

THE postage on the *Genesee Farmer* is only 3 cents a year in this State, and 6 cents to all other States. We prepay the American postage on all papers sent to Canada without extra charge.

THE MARKETS.—There has been so little change in the markets since last month that we omit our usual Report.

The Genesee Farmer—Opinions of the Press.

EVERY mail brings us papers saying a good word for the *Genesee Farmer*. It is customary to reproduce these notices, but our space forbids. We assure our brethren of the Press, however, that their good will and kind words are fully appreciated. We can find room for only a few of the many hundred notices recently received:

Its contents are unsurpassed.—*Pennsylvania Star*.

It ought to be in the hands of every farmer.—*Pittstown (Pa.) Gazette*.

THE GENESEE FARMER.—This is an able farm journal, and the cheapest we know of anywhere.—*Hightstown Gazette*.

The information contained in one number is worth more than the whole year's subscription.—*Uniontown (Ind.) Press*.

THE GENESEE FARMER.—The hard times and political troubles do not seem to affect the *Genesee Farmer*.—*Riverhead Union*.

Of all the agricultural journals, there is none we are more glad to welcome to our table than the *Genesee Farmer*.—*Farmers' Cabinet, N. H.*

Those who want a cheap and instructive as well as reliable agricultural journal, will subscribe for the *Genesee Farmer*.—*Herald, Springville, N. Y.*

THE GENESEE FARMER.—It gives as much practical reading for 50 cents as the fashionable magazines afford of light literature for two dollars.—*Atlas*.

THE GENESEE FARMER.—Every farmer who fails to procure this most excellent publication entirely neglects his own best interests.—*Greenport Watchman*.

THE GENESEE FARMER.—This is one of the oldest and best agricultural papers published, besides being the cheapest.—*Toronto (C. W.) Leader*.

THE GENESEE FARMER.—This neat little agricultural monthly is always a favorite visitor, and we assure our readers it is well worth its price to any farmer.—*Press*.

THE GENESEE FARMER.—This journal is, beyond all doubt, far superior to all others of like character. The farmers of this county need just such a work.—*Sentinel, St. Clair, Pa.*

The December number of the *Genesee Farmer* is received. It is so cheap that every person interested in soil culture can afford it—only 50 cents a year.—*Hightstown (N. J.) Gazette*.

THE GENESEE FARMER contains a great variety of practical articles. This highly useful agricultural journal is well worthy the extended circulation which it has in Canada.—*Essexville (C. W.) Post*.

THE GENESEE FARMER is around again. This is one of the best agricultural papers offered to the public. The paper is filled with excellent matter, and the price is low.—*Berrien Co. (Mich.) Independent*.

GENESEE FARMER.—This is one of the agricultural periodicals that farmers ought to patronize and read. It is published in a section of country where farming is carried on to the best advantage.—*Observer*.

There are but few farmers that would be without this excellent periodical if they knew its value. The *Farmer* is so cheap that all can afford to take it. It is emphatically "the paper for the times."—*Suffolk Democrat Babylon, (N. Y.)*

THE GENESEE FARMER.—This excellent agricultural monthly is received. The November No. is specially valuable. It is published in 8vo. form—82 pages in each No., and is, therefore, convenient for binding and preserving.—*Northern Christian Advocate, Auburn, N. Y.*

THE GENESEE FARMER is on our table, as usual filled with interesting topics, ably discussed and calculated to promote the interests of agriculture. While it propounds theories, it does so with a view to the practical bearing upon the tillers of the soil.—*Nova Scotia Register*.

THE GENESEE FARMER.—The December number of this invaluable agricultural journal is now before us, filled as usual with sound, practical, and reliable information on

agriculture, horticulture, stock raising, and everything which can in any degree prove of interest to farmers. We have no hesitation in recommending it to our readers as the best journal of its class published, and one which should be taken by every individual who has an interest in the cultivation of the soil. And then the cost (only 50 cents a year) brings it within the reach of every one. It has already, as it deserves, a very large circulation among the intelligent farmers of Canada West.—*Herald, Ingersoll, C. W.*

GENESEE FARMER.—The December number of the excellent Agricultural periodical is received. It contains a large amount of matter interesting to Farmers, and we have great pleasure in recommending it to them. JOSEPH HARRIS, Rochester, N. Y.—*Sentinel, Cayuga, C. W.*

The eleventh number of the XXII. volume of the Second Series of the *Genesee Farmer* is on our table, richly freighted with solid agricultural matter. Were we engaged in farming, we would not be without it to double its cost.—*Bellefontaine (Ohio) Republican*.

THE GENESEE FARMER.—For 50 cents a year you can have one of the best agricultural and horticultural monthlies in the country. It is published at Rochester, N. Y., by JOSEPH HARRIS. Each number contains 32 octavo pages, and is illustrated with new and appropriate engravings.—*Congregational (N. H.) Journal*.

THE GENESEE FARMER.—This cheapest and best farmers' monthly is published at Rochester by JOSEPH HARRIS. Its short original prize essays often make one number worth more to the reader than a year's subscription costs; and many a poor man (and occasionally a rich one, too) does without the *Farmer* who can't afford to. Only 50 cents a year—and you can join a club at the *Atlas* office and get it for 1862 at 37½!—*Attica (N. Y.) Atlas*.

THE GENESEE FARMER is an old established monthly paper of 32 pages octavo, devoted entirely to farming, published at Rochester, N. Y., by JOSEPH HARRIS, at 50 cents per annum, or at 37½ cents to clubs of eight. Its circulation is large, and its influence upon the agricultural interests of Western New York, and in fact throughout the whole country, has been powerfully felt for many years past. The high and advanced state of agriculture in Western New York is owing in great part to this paper, and we feel that we are justified in saying that it has made the city of Rochester the great agricultural and horticultural center of the United States.—*Wilkes-Barre (Pa.) Union, Dec., 1861*.

WHEAT DOES NOT PAY IN IOWA.—MR. DUANE WILSON, Secretary of the Iowa Agricultural Society, estimates the yield of wheat in that State the past year at 12 bushels per acre. The price obtained is 40 cents per bushel, or \$4.80 per acre. He thinks this involves a loss of \$2 per acre, or about three millions of dollars for the whole State! He thinks the farmers of the Northwestern States can not afford to raise wheat, except for home consumption.

The great crop of the west is corn. Iowa produced last year, estimating the yield at .35 bushels per acre (which is 10 bushels less than in 1860), over fifty-two million bushels. This Mr. W. thinks will fatten over \$8,000,000 worth of beef and pork, even at the present low prices, so that, Mr. W. says, no one need suppose that farming does not pay in Iowa. He estimates that over a million dollars worth of sorghum syrup and sugar was raised in the State last year.

A YOUNG farmer asked an old Scotchman for advice in his pursuit. He told him what had been the secret of his own success in farming, and concluded with the following warning: "Never, SANDIE, never—above all things, NEVER get in debt, but if ever you do, let it be for manure!"

Inquiries and Answers.

SUBSOIL PLOW.—(J. MACHOR.) We are not acquainted with the plow to which you allude.

HUSKING CORN.—(M. R.) The price usually paid for husking corn in this vicinity is 3 cents a bushel of ears. We have known 4 cents paid.

FOOT-ROT IN SHEEP.—(BENJ. TURNER.) Pare the hoofs, and then with a feather apply some muriate of antimony, or a strong solution of sulphate of copper. Coal tar is a preventive, as well as a cure.

GRAFTING APPLES AND PEARS ON CRAB APPLE, AND PEACHES ON PLUMS.—(C. H. P., *Greenville, Mich.*) You will probably be able to work successfully the different varieties of apples on the wild crab-apple stock, but the pear will not make a union with this stock sufficiently lasting to be useful. Working peaches on plum stocks does not render them harder, but admits of their culture in land somewhat heavier than is suitable for the peach.

RICE FOR PIGS.—(A Long Island Farmer.) We do not recollect any experiments showing the value of rice as food for pigs. This we know, however, that rice contains a large available amount of carbonaceous matter, and must, when mixed with some highly nitrogenous food, such as peas, be very nutritious. Whether it will pay you to feed damaged rice depends on the price. It can sometimes be obtained at a cheap rate. In a London paper now before us (the *Agricultural Gazette*) it is offered for £4 or \$20 per ton. If you use it, we shall be glad to hear the results of your experiments.

"WHAT BREED OF PIGS SHALL I KEEP?"—(R. T.) That depends on circumstances. Near a large city, where fresh pork is in demand, a small breed will probably be most profitable, as small pigs, that are fat at an early age, always command the highest price. This is the reason why the "small breeds" are so popular in England. The Essex or the small Suffolk will in this case suit you.

On the other hand, at the West, where corn is abundant, the large breeds that will attain great weight at say 18 months old, will be most profitable. Such a breed as the Yorkshire would there be desirable.

ASPHALTE FLOORS.—(R. T. A.) They are quite common in England. They are made as follows: Dig sifted gravel, such as is used for topping walks, and use coal gas tar; level the ground perfectly; mix gravel and tar, two quarts of the latter to each bushel of the former, till every particle of gravel is saturated with tar. This is best done on a boarded or stone floor; spread evenly, about one inch thick; roll till hard with a heavy garden roller. When dry, add from 2 to 5 inches more, according to the purpose for which the floor is required. Roll as soon as laid, and frequently, until it is quite solid.

GRAPES FOR WINE.—(R. H. M., *Palmira, Ind.*) The Clinton Grape possesses no superior qualities to the Catawba for wine purposes, where that variety can be grown in perfection, but is in every respect inferior. The Delaware is the only variety, in our estimation, which is better for this purpose, and we shall expect to see it planted more extensively for vineyards than any other sort.

While it is equally as productive as the Catawba, it has the advantages of being hardier, earlier, and better in quality. Even farther north than where the Isabella ripens, this sort can be produced in perfection.

BEST CLIMATE FOR SHEEP.—(W. COOK.) We have not space to answer your inquiries in full this month. Sheep can stand cold weather without injury if it is *dry*. Sudden changes and cold rains are very injurious. We believe sheep require shelter quite as much in the Southwest as at the North. The weather is not as cold, but is more changeable, and the sheep frequently get thoroughly soaked to the skin. In this condition a cold, raw wind, and a damp soil can not help but carry off much of the heat which is necessary to the well-being of the sheep. The natural heat of the body of sheep (105°) is much higher than that of horses and cattle. This heat is kept up by the consumption of food (or burning of fuel) in the lungs, etc., of the animal. To prevent this heat from flying off, the sheep are provided with a good warm coat of wool. To be effectual, however, the coat must be kept dry. In a cold, dry climate, if the wool gets a little wet on the outside it is soon frozen, and this acts as a coat of mail, with a good warm lining of dry wool inside, so that the heat from the warm body within does not fly off. It is said that the Scotch Highlanders in olden times, when exposed during frosty nights, wet their plaids before lying down to sleep, and by holding them for a short time from their bodies they were frozen into a stiff, hard board, sufficiently thick and impervious to defend them from the cold. The slight coat of frozen wool acts in the same way. But in wet weather there is no such protection, and so it is that you will find it equally important to provide shelter in the warm, but wet and changeable, climate of the Southwestern States.

MIXING PAINTS.—Will some of your correspondents who have had experience furnish a few directions for mixing paints for general use on the farm?—C., *Avon, N. Y.*

THE REV. G. A. ANDERSON writes: "The December number of the *Genesee Farmer* has come to hand, as usual full of valuable information to any man, no matter what his position in life may be. It is to be hoped that your subscriptions for 1862 will be more than double that of the past year. Many persons have objected to what they call "book farming," but there can be nothing said against following the advice you give us. The more such a paper is read, the better will our land be cultivated, and the less idleness and dissipation will there be."

PREMIUM CROPS IN MAINE.—Some friend has kindly sent us the Report of the Committee on Crops of the Androscoggin (Me.) Agricultural Society. The first prize for corn was awarded for a crop of 72 bushels of shelled corn per acre. The first prize potato crop was 280 bushels per acre. The first prize ruta-baga crop was 165 bushels on one-quarter of an acre, or at the rate of 530 bushels per acre. Carrots 450 bushels per acre.

SHEEP IN IOWA.—MR. H. TEN EYCK, of Madison county in this State, took 113 Merino ewes in the autumn of 1860 to Iowa. He is so well satisfied with the result that he has recently increased his flock to 1,200. He thinks Iowa well adapted to wool-growing.

Special Notices.

FRUIT-GROWERS' SOCIETY OF WESTERN NEW YORK.—The Annual Meeting of the Fruit-Growers' Society of Western New York will be held in the Court House, Rochester, N. Y., on WEDNESDAY, the 8th day of January, 1862. By order of the Council.
C. P. BISSELL, Secretary, Rochester, N. Y.

PARTIAL LIST OF GIFTS GIVEN AT THE METROPOLITAN GIFT BOOK-STORE DURING THE PAST FOUR WEEKS.—47 Gold and Silver Watches, 18 Large Size Silver Ice-Pitchers, 31 Gold Chains, 12 Silver Tea-Pots, 18 Silver Cake-Baskets, 21 Silver Card-Receivers, 112 Sets Silver Forks, 87 Sets Tea and Table-Spoons, 13 Silver Tea and Coffee-Urns, 31 Silver Wine and Milk-Pitchers, 8 Silver Tea-Sets, 27 Gold Band Bracelets, 145 Gold Pens—Silver Extension Cases, besides over Ten Thousand other articles of value. A Gift accompanies each Book, varying in value from 50 Cent to One Hundred Dollars. Two Hundred Presents can be obtained at this establishment for the price of one.

ADVERTISEMENTS.

A FEW short advertisements of interest to farmers—and only such—will be inserted in the *Genesee Farmer* for twenty-five cents a line, or \$2.50 per square, each insertion, payable in advance.

We will also insert a few "Special Notices," if appropriate to our columns, at fifty cents a line.

TO DAIRYMEN.

THE owner of a large farm in Upper Canada is desirous of selling the milk of

FIFTY COWS

to a

CHEESE OR BUTTER MAKER

for a term of years, commencing next summer. He will provide the cows, buildings, pasture, feed, bedding, and attendance; and be entitled to the calves and manure. The dairyman to provide milkers, and pay for the milk by the gallon. The number of cows may be increased at the option of the dairyman to 200. The land produces excellent

Clover Pastures and Root Crops.

No one need apply who is not a first-rate Cheese or Butter maker, and able to pay cash weekly for the milk he gets.

Offers addressed "DAIRYMAN," *Globe* office, Toronto, C. W., will receive immediate attention.
Toronto, C. W., Dec. 5, 1861. Ja.—1t

FOR SEWING MACHINES.

JONAS BROOK & BROTHERS'

PRIZE MEDAL SPOOL COTTON,

230 or 500 yard spools, White, Black, and Colored.

FOR MACHINES, use BROOK'S PATENT GLACE for upper thread, and BROOK'S SIX CORD RED TICKET for under thread. Sold by all first class dealers in city and country; also in cases of 100 dozen each, assorted numbers, by WM. HENRY SMITH, Sole Agent, 36 Vesey street, New York. Ja.—1y

Grape Vines—Clubbing.

OPORTO VINES, \$1 EACH; \$6 PER DOZEN.

FOR FIVE DOLLARS I will box and deliver to the Express or Railroad the following vines, one half of them 2 years old: 3 Oporto, 1 Rebecca, 2 Concord, 1 Delaware, 2 Hartford Prolific, 2 Clinton, 2 Isabella.

For vines or catalogues of Lyons Nursery, or terms to Agents, address Ja.—3t E. WAKE SYLVESTER, Lyons, N. Y.

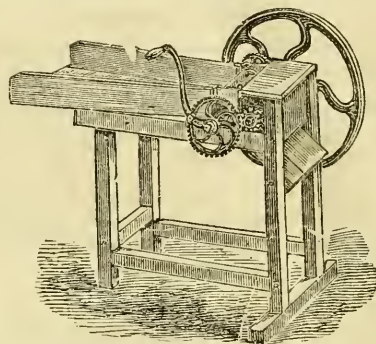
"Short-Horns."

I HAVE for sale a few BULLS and BULL CALVES, COWS, and HEIFERS, mostly by the Imported Bulls Duke of Gloucester (11.3-2) and Grand Duke of Oxford (16.184).

Ja.—4t JAMES O. SHELTON, Geneva, N. Y.

PLEURO-PNEUMONIA IN CATTLE IS AND CAN BE CURED.—When treated in its early stages by the remedies manufactured by GEO. J. SCATTERGOOD, Druggist, 5 and Callowhill streets, Philadelphia.
Nov.—3t

\$100 PER MONTH.—Made by any one with Stencil Tools. For a circular explaining the business, Address JOHN MILLIKEN, May.—1y Lawrence, Mass.



ALEXANDER GORDON.

No. 68 South Saint Paul Street, Rochester, N. Y.,

MANUFACTURES

ROCHESTER PREMIUM CUTTING BOX—One Knife.

“EMPIRE FEED CUTTER—Four Knives.

ALL who have seen and used the above, pronounce them superior to every other kind of Feed Cutters. They are simple, compact, substantial and highly finished. They may be operated either by hand or horse-power, and cut equally well Hay, Straw or Cornstalks. It is now universally conceded that it is not only economy to cut feed, but also beneficial to stock.

I also manufacture

1, 2, 3, 4, 6, 8 and 10 Horse Powers, and PITT'S PREMIUM THRESHING MACHINE of various sizes. Send for Circulars.

ORDERS RESPECTFULLY SOLICITED.

The New England Family Newspaper.

THE SPRINGFIELD REPUBLICAN FOR 1862,
DAILY, TRI-WEEKLY, AND WEEKLY.

THE SPRINGFIELD (MASS.) REPUBLICAN may not hesitate to claim position as the first and most distinctive of New England journals. In the scope and adaptation of its news, in the choice of its subjects for editorial discussion and the manner in which it treats them, in the great variety of its contents, and in the prominence it gives to practical, moral, and religious questions, to literature, to gardening and farming, and to every theme of practical and theoretical interest to the people of New England, the REPUBLICAN has sought successfully to become their guide, companion, and friend, whether at home or abroad.

Among the peculiar leading features of the REPUBLICAN are a full Summary of New England News, arranged by Counties and States; an elaborate and comprehensive Editorial Review of the Week; Special Correspondence of a high character from Boston, New York and Washington; a weekly Review and Summary of all Religious Movements; original Papers on Husbandry; Summaries of new ideas and inventions in Science and Mechanics; a weekly Article on Books, Authors, and Art; and an abundance of original literary articles, both of prose and poetry, with carefully selected miscellanies from the freshest books and magazines. The editorial corps of the REPUBLICAN numbers six individuals, including Dr. J. G. Holland, the popular "Timothy Titcomb" of literature and lecturing.

TERMS.—For the DAILY: One copy one year, \$5. Ten copies to one address one year, \$40.

For the TRI-WEEKLY (published on Monday, Wednesday, and Friday mornings): One copy one year, \$3; ten copies to one address, \$25.

For the WEEKLY REPUBLICAN: One copy six months, \$1; one year, \$2; two copies to one address one year, \$3. To clubs by mail: Five copies to one address one year, \$7; ten copies, \$12; twenty copies, \$20.

All orders must be accompanied with the cash.

Specimen copies sent on application.

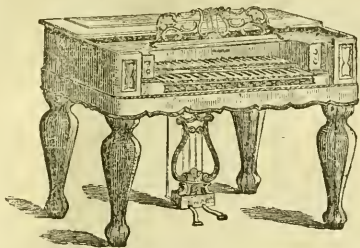
Ja.—1t SAMUEL BOWLES & COMPANY,
Publishers, Springfield, Mass.

CRESTED HAMBURG FOWLS.—A few choice birds of the Golden Spangled Crested Hamburg variety, may be had by applying to
C. N. BEMENT,
66 East 29th street, New York.

\$75 A MONTH.—I want to hire AGENTS in every county to sell a new, cheap SEWING MACHINE at \$75 per month and expenses. Address (with stamp),
Dec.—2t S. MADISON, Alfred, Maine.

EMPLOYMENT at a liberal salary and expenses. For particulars address 3dt HARRIS BROS., Boston, Mass.

PRINCE & CO.'S IMPROVED PATENT MELODEONS. Warranted for Five Years.



THE Oldest Establishment in the United States, employing 200 men, and finishing 80 instruments per week.

WHOLESALE DEPOTS.

87 Fulton street, N. Y., and 82 Lake street, Chicago. Manu-
factory, corner Niagara and Maryland streets, Buffalo.

WHOLESALE AGENTS.

Russell & Tolman, Boston, Mass.; W. F. Colburn, Cincinnati;
Ohio; Balmer & Weber, St. Louis, Mo.; Ph. P. Werlein, New
Orleans; A. & S. Nordheimer, Toronto, C. W.

LIST OF PRICES.

PRICES OF PORTABLE INSTRUMENTS.

Four Octave, C to C, \$45.
Four and a half Octave, C to F, \$60.
Five Octave, F to F, \$75.
Five Octave, Double Reed, F to F, \$130.

PRICES OF PIANO CASED.

Five Octave, F to F, \$100.
Six Octave, F to F, \$130.
Five Octave, Double Reed, F to F, \$150.
Five Octave, Two Banks of Keys, \$200.

ORGAN MELODEON.—Two Banks of Keys, Five Sets of Reeds,
Eight Stops, One and a Half Octave Foot Pedals, One Set of
Reeds in Pedal Bass Independent, \$250.

ORGAN MELODEON.—One Bank of Keys, Three Sets of Reeds,
Six Stops, One and a Half Octave Foot Pedals, \$250. One Set of
Reeds in Pedal Bass Independent, \$25 extra.

OUR LATEST IMPROVEMENT—PRINCE & CO.'S GRAD- UATED SWELL.

Patented September 17, 1861.

This is an entirely new idea, and its want has been noticed by
all acquainted with Reed Instruments. The old swell could
never be made to operate gradually; the instant the pedal was
touched for opening it, the change would be instantaneous and
abrupt.

Our NEW SWELL is constructed on scientific principles, and
we are satisfied, by our uniting study and experiments, that it is
the only one by which the tone of Reed Instruments may be gradu-
ated from a mere whisper to the full power of the instrument,
and *vice versa*. The volume of tone is also very much increased
by this swell, and is now all that we could desire.

This, in connection with our DIVIDED SWELL (which we
patented in 1855), will be added to all the Melodeons which we
manufacture in the future, and without extra charge. One other
feature in our Melodeons is the IMPROVED VALVE OR PAL-
LET, being a combination of cloth and leather, prepared ex-
pressly for the purpose. This valve we have used for the past
three years, and we find it to be the very thing that has been so
long needed as a substitute for the India Rubber Valve, which
has been in general use since Melodeons have been manufactured,
and which has caused so much trouble by the discolored and
sticking of the India Rubber. All of our instruments are now
finished with this improved valve, and we can recommend them
with confidence.

Persons unacquainted with the Melodeon and its history, will
bear in mind that we are the pioneers and leading manufacturers,
not only in the United States, but in the world. We commenced
the manufacture of Melodeons in the fall of the year 1847, and
since that time have finished and sold TWENTY-SEVEN
THOUSAND. These instruments are now in use mostly in the
United States and Canada, but also in Europe, Asia, Africa, South
America and the West Indies, and from all these quarters we
have the most flattering testimonials of the high estimation in
which they are held. AT ALL INDUSTRIAL EXHIBITIONS
THEY HAVE INVARIABLY BEEN AWARDED THE
HIGHEST PREMIUM WHENEVER EXHIBITED IN COM-
PETITION WITH OTHERS.

We shall take pleasure in forwarding by mail (at our own ex-
pense) our Illustrated Catalogue, in which every instrument we

manufacture is fully described, and illustrated by elegant en-
gravings.

All Melodeons of our manufacture, either sold by us or dealers
in any part of the United States or Canada, are warranted to be
perfect in every respect, and should any repairs be necessary be-
fore the expiration of five years from date of sale, we hold our-
selves ready and willing to make the same free of charge, provid-
ed the injury is not caused by accident or design.

Agents for the sale of our Melodeons may be found in all the
principal towns of the United States and Canada.

Address either

GEO. A. PRINCE & CO., Buffalo, N. Y.

GEO. A. PRINCE & CO., 87 Fulton street, New York.

GEO. A. PRINCE & CO., 82 Lake street, Chicago, Ill.

Or either of the above wholesale agents.

THE OHIO FARMER. THE OHIO FARMER. THE OHIO FARMER.

VOL. XI.—1862.

THIS old and well established WEEKLY paper will com-
mence its ELEVENTH year in January. It is pre-eminently

THE FARMERS' FAMILY PAPER.

The New York Tribune says of it:

"It is a handsome quarto, filled with miscellaneous and agri-
cultural matter, suited to an enlightened Farmers' Family."

In one year it contains about TWENTY-TWO DUODECIMO
VOLUMES of standard matter, as follows:

ONE VOLUME OF POEMS.

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ONE VOLUME OF HOUSEHOLD STORIES.

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FOUR DO. ON FARMING & GARDENING GENERALLY.

ONE VOLUME ON INJURIOUS INSECTS.

ONE VOLUME ON DRAINING.

TWO VOLUMES OF MISCELLANEOUS MATTER.

TWO VOLUMES ABOUT THE WAR.

READER, if you wish TWENTY-TWO VOLUMES per
annum for \$2 (\$1.50 in small Clubs), subscribe at once for

THE OHIO FARMER.

For SAMPLE NUMBERS, PROSPECTUS, &c., &c.,
address

THO. BROWN, Cleveland, Ohio.

Andre Leroy's Nurseries, AT ANGERS, FRANCE.

THE Proprietor of these Nurseries, the most extensive in the
world, has the honor to inform his numerous friends and the
public that his CATALOGUE OF FRUIT AND ORNAMENTAL
TREES, SHRUBS, ROSES, SEEDLINGS, FRUIT STOCKS, &c., for the
present season, is now ready and at their disposal. Apply to

BRUGIERE & THEBAUD,

51 Cedar Street, New York.

Nov—31

PRINCE ALBERT WINDSOR PIGS.

I OFFER a few good specimens, three and four months old, of
this improved Suffolk breed, the produce of animals selected
with care from Prince Albert's stock at Shaw Farm, Windsor, and
imported by me last fall. The animals sent me were pronounced
by Prince Albert's steward to be equal to any pigs in England.
Price, boxed for transportation, \$25 each, or \$50 dollars for a boar
and two sows, from different parents on both sides.

Dec.—21

L. MASON, J.L., South Orange, N. J.

\$100 OR MORE may be made by any LOCAL AGENT
without leaving his home, besides rendering an im-
portant service to his neighbors and friends, by selling the OPORTO
Grape vines. For terms to agents, address

Oct.—51

E. WARE SYLVESTER, Lyons, N. Y.

FWLER'S PATENT STEAM PLOWING MACHINERY.

PATENT-RIGHTS for States and Counties and Machines are
now for sale. Descriptive pamphlets sent post free. Apply
to

Jan.—41

608 South Delaware Avenue, Philadelphia.

R. W. EDISON.

POULTRY FOR SALE.—The large White Aylesbury Duck,
Black Spanish Fowls. Also, Cotswold Sheep. Address

Jan.—11*

E. C. ARMSTRONG, Florida, N. Y.



INTERIOR VIEW OF THE METROPOLITAN GIFT BOOK STORE, NO. 26 BUFFALO ST., ROCHESTER, N. Y.

J. F. HONE, Proprietor.

THE largest and most liberally conducted establishment of this kind in the United States. At this establishment you can procure any book you may desire, and have the advantage of receiving

A GIFT,

varying in value

From Fifty Cents to One Hundred Dollars, without any additional expense, with each book purchased.

The following is a Schedule of Property, one of which will be given to every purchaser of a book at the time of sale, as a Dividend due our Patrons:

Patent Lever Gold Watches, Hunter cases, valued and sold for.....	\$100 00
Patent Lever Gold Watches.....	45 00
Detached Lever Silver Watches, Hunter,.....	25 00
Lepine.....	20 00
Detached Lever open face Watches,.....	18 00
Lepine do do.....	12 00
Gold Bracelets.....	\$8 to 10 00
Gold Lockets.....	\$7 to 10 00
Cameo Pins or Florentines.....	\$3 to 5 00
Sets Pins and Ear Rings.....	4 50
Mosaic, rich setting.....	5 00
Gold Breast Pins.....	1 50
Sets Cameo Drops or Paintings.....	5 00
Gold Lockets.....	5 00
Gents' Gold Pins, stone setting.....	1 50
Gold Ear Drops.....	2 00
Sets Ladies' and Gents' Gold Sleeve Buttons.....	3 00
Misses' Mosaic or Cameo Pins.....	2 50
Sets Solid Silver Tea Spoons, Table Spoons and Forks, \$6 to 18 00	
Sets ditto, heavy Silver Plated.....	4 00
Pen Knives.....	50
Butter Knives.....	1 00
Mammoth Gold Pens.....	2 50
Gold Pencils and Tooth Picks.....	2 50
Silver Cups.....	5 00
Do Pitchers.....	25 00
Gold Lined Salt Castors.....	5 00
Silver Claret Pitchers.....	15 00
Silver Butter Dishes.....	\$6 to 12 00
Silver Napkin Rings.....	2 00
Do Pickle Forks.....	75
Do Salt Spoons.....	50
Do Mustard Spoons.....	50
Do Fruit Knives.....	5 00
Do Plated Table Forks.....	4 00
Do Card Receivers.....	5 00
Do Tea Sets.....	from \$30 to 50 00
Pocket Diaries.....	50

BOOKS AT \$1.00.

Green Mountain Boys; Ladies' Cabinet of Gems; Woman and her Diseases from the Cradle to the Grave; Three Brides, or Love in a Cottage; Haywood's Book of all Religions; Mechanic's Own Book; Life of Christ and his Apostles; Angel Whispers; Old Man's Bride;

Pocket Bible, with clasp; Green Mountain Travelers; Legal and Commercial Lawyer; Orphan Boys; Young Lady's Guide to Gentility; Domestic Cookery; Methodist Hymns, morocco gilt edges; Arabian Nights; Land of Gold; Sweet Home, or Life in the Country; Lessons in Life. Ten Nights in a Bar Room; True Prince of the Tribe of Judah; Life of Martin Luther; Brother Clerks; Mornings with Jesus; Half Hour Stories; Spurgeon's Gems. Tales of the Ocean; Webster's High School Dictionary; Pilgrim's Progress; Fifty Years in Chains; Photograph Album.

BOOKS AT \$1.25.

Livingstone's Travels in South Africa; Prince of the House of David; Throne of David; Poetical Works of Byron, Burns, Moore, Hemans; Mrs. Partington's Knitting Work; Nemesis; Everybody's Lawyer, by Frank Crosby; The Horse and his Diseases, by Jenkins; Mason's Farrier; Europe, its Scenes and Society; Napoleon and his Army; Japan and the Japanese, by Hildreth; Lady's Hand Book of Fancy and Ornamental Work; Life of the Empress Josephine; Cross' Masonic Chart; Romance of Revolution; Great Expectations, by Dickens; Thaddeus of Warsaw; Works of Mrs. Lee Henz, Mrs. Southworth, Mrs. Holmes;

MISCELLANEOUS.

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THE Genesee Farmer.

THE PRACTICAL AND SCIENTIFIC FARMER'S OWN PAPER

VOL. XXIII, SECOND SERIES.

ROCHESTER, N. Y., FEBRUARY, 1862.

No 2.

HOW TO RESTORE A WORN-OUT FARM.

EDS. GENESSEE FARMER.—I have lately come into possession of a farm that has been worked on shares for some years, till it is pretty well skinned. The soil is naturally of good quality, some portions a sandy loam and others of a more tenacious character. How shall I go to work to improve it? Shall I buy artificial manures, or what other course shall I adopt? Any advice you can give me will be thankfully received.

R. S.

Monroe Co., N. Y.

REMARKS.—It is not easy to give definite directions for the renovation of an impoverished farm. If there is any muck on the farm, let it be thrown up next summer, and either composted with lime and ashes, or drawn into the barn-yard and stables to absorb all the liquid. In this way it will make good manure.

Artificial manures are very handy on any farm, and especially on one that has been run down. Personally, we should not like to be without either Peruvian guano or superphosphate of lime. They can be used to advantage by any one who has the requisite knowledge of their qualities, and of the crops to which they are best applied. For instance, Peruvian guano can ordinarily be used on potatoes with profit. We have used it more or less for ten years, and in some instances 300 lbs. per acre has increased the crop from 100 to 200 bushels per acre. That is to say, \$10 worth of manure gives you 100 bushels of potatoes, which thus cost you ten cents per bushel. When potatoes are as cheap as they have been the last year, this will hardly pay, but when you can get fifty cents a bushel for them it is quite profitable. If wheat commanded as high a price, *relatively*, as potatoes, it would be equally profitable to use guano for wheat—as good Peruvian guano has as great an effect on wheat as on potatoes. We do not know that we shall succeed in making our meaning plain. If land without manure will produce 100 bushels of potatoes per acre, and 300 lbs. of guano will *double* the crop, we get 100 bushels per acre from the use of

the guano. On the other hand, if land without manure yields 10 bushels of wheat, and 300 lbs. of guano will double the crop, as before, we get 10 bushels of wheat from the use of the guano. Now, as 100 bushels of potatoes are ordinarily worth much more than 10 bushels of wheat, the use of guano on potatoes is much more profitable than for wheat, though the effect of the manure is no greater in the one case than in the other. If we could get \$2 per bushel for wheat, guano might be used for this crop with profit. When it sells for \$1 per bushel it will barely pay, except under rare circumstances.

We believe the time will come when artificial manures will be more extensively used in the Eastern States and throughout the whole Atlantic slope than in any other country, and farmers would do well to study their relative value, manner of application, etc. At present, however, we would not advise you to purchase largely. Try a little on various crops, and thus ascertain how they can be most profitably used.

Your main dependence for enriching the soil will be in *thorough cultivation*, and in making all the manure you can on the farm.

Two things must be borne in mind. One is that the growth of some crops impoverishes the soil more than others; and secondly, that some crops make *richer manure* than others. Thus, a crop of red clover does not impoverish the soil as much as a crop of timothy grass, while a ton of clover hay will make manure worth half as much again as that made from a ton of timothy hay. The same is true of peas and beans. The manure from a given weight of these is worth *double* what it is from oats, barley, rye, or Indian corn.

Your object must be to raise all the clover, peas, turnips, mangel-wurzels, etc., you can, and *feed them out on the farm* to stock. This will give you manure,—*rich* manure—not rotten straw—manure abounding in all the elements of plants: manure

that will *tell* wherever applied and on whatever crop.

If you can raise good clover, you *may* be sure of raising good crops of everything else,—if the clover is retained on the farm. Try a little superphosphate on clover, say 200 lbs. per acre. It *may* pay. Plaster certainly will pay. Sow it as early as possible this spring. If you have any well rotted manure, apply it as a top-dressing on your clover. Let it go as far as it will. What you do, do well. Don't try to make it go over too much land. Apply plaster, say 100 lbs. per acre, on all the clover you have on the farm, and let it lie in pasture or mow it. Do not plow too much land. This is the great error of American agriculture. Sow only as much land to wheat, barley, oats, etc., as you can prepare in the best manner. One acre of *good* wheat will afford more *profit* than three acres of poor wheat. Don't be in too great a hurry to get good crops. Renovating an impoverished soil is slow work. It takes time, but it can be accomplished.

If any of the land needs underdraining, as it probably does, this operation must be one of the first things attended to. Everything else will fail if this is neglected. Do not think because your land is sandy and rolling, that therefore it is necessarily dry. Such land often needs underdraining. Mr. SWAN, in underdraining his fine farm near Geneva, found that the *highest* portions of the farm, right on top of the ridges, were much wetter and needed more underdraining than the lower portions. This is frequently the case. To ascertain whether your land needs draining, dig a few holes three feet deep in different parts of the farm, and if water remains in them you must underdrain.

If you have any low, swampy places cut a ditch through them and underdrain as thoroughly as you can. Such soil, when well drained, often proves to be the most productive land on the farm, and the large crops which can be obtained from them will enable you to make manure for the upland portions of the farm. BOUSSINGAULT, the celebrated French chemico-agriculturist, thinks that good meadows on such land are the manure mines of the farmer.

To sum up. Underdrain. Cultivate the land *thoroughly*, and thus develop its latent resources. Get all the muck and other vegetable matter you can from the swamps. Bring into cultivation all the low, rich land you have on the farm. Plaster your clover and raise as much of it as possible, and feed it out to stock. Or, if this will not pay, plow

it under. Raise all the peas and turnips you can, and feed them out on the farm. Be very careful to save all the manure. Let none of it run away or evaporate. There is not much danger of the latter if you have plenty of straw or muck, and if you spout your buildings there need not be much liquid lost. Sell nothing off the farm except wheat,—and, while the price is so high, *beans*—wool, pork, mutton and beef. Cultivate in the best way, make all the manure you can and your farm will in a few years be in a high condition.

VEGETABLE SOUP FOR PIGS.

MANY plans have been adopted in England to promote the economical feeding or grazing of store-pigs. The great barrier has been the expense. It has been highly recommended, and in many cases tried extensively, to keep store-pigs on a kind of vegetable soup throughout the summer. The plan followed is to collect any refuse vegetation, including weeds of all sorts; to boil them a short time to extract their virtues, and then mix into the liquid a very small quantity of meal or shorts, and give this, as required, to the pigs in an open yard or paddock. They will thrive very well upon it, but the collection and boiling for a large number is tiresome and expensive. Another and better plan is to reserve as much of the mangel-wurzel crop as can be well spared, and give a few every day in addition to the day's grazing. Another is to provide a supply of the artificial grasses, which are mown and carried to them daily; lucerne, broad clover, and sainfoin are good food for them; but tares and pasture-grasses are too succulent, and require a little correction in the form of pea or bean-meal porridge; indeed, this is always desirable under vegetable diet of this character. Another plan, recommended in MORRIS'S "Cyclopaedia of Agriculture," is to have plantations of Jerusalem artichoke, chicory, comfrey, rhubarb, as also large supplies of cabbage, coleseed, mustard, lettuce, and the like. These plants produce a large quantity of green food, most of which are well relished by the pig. Jerusalem artichokes and rough comfrey grow very fast in early spring and yield much weight of herbage. Chicory and rhubarb yield surprisingly, as do also cole-seed, mustard, and lettuce. Cabbage requires more attention and culture, but it becomes the more stable food. These, if cultivated extensively, and given in conjunction with meal-porridge, will provide, it is said, acceptable and nutritious food for any number of pigs, and at a season of the year when most needed.

PIGS—WHAT IS A BREED?

EDS. GEN. FARMER:—I feel very anxious to know what constitutes a *breed*—for instance, a breed of swine. Farmers are too illiterate (judging others by myself), yet I am very thankful they are in the way of progress and improvement. In our vicinity there are, or have been, various kinds of swine, viz., Suffolk, Essex, Berkshire, Middlesex, Neapolitan, Chinese, Yorkshire, Leicester, Byfield, Tuscarora, Mackay, Russia, etc., and in the last issue of the *Rural New Yorker* mention is made of the White Berkshire *breed*. Now, I wish to know if there is any peculiar identity to each of the above-named "breeds." For pity sake, please define and particularly describe the "breed" called White Berkshire; or, if it can not be done, do tell us through the *Genesee Farmer* what constitutes a "breed." I feel interested, and anxiously wait for an answer.

BELA DUNBAR.

North Chili, N. Y.

REMARKS.—We shall be glad to hear from our readers on this point. It is not easy to define what constitutes a breed. Some people seem to think that breeds, like poets, "are born, not made," but we never could see any good foundation for this opinion. In the case of hogs, certainly, our best breeds are the result of *crossing*. The fineness of bone, early maturity and fattening qualities of the English "small breeds" were derived, at no very distant period, directly or indirectly from the Chinese hogs. Such a cross, when it is firmly established and the characteristics have become constant, is denominated a "breed." If the pigs breed true—if they have definite qualities, always the same, they are a distinct breed, no matter how frequently they have been crossed before the desirable qualities have been obtained.

It is, however, not easy to establish a breed. There is for many generations a tendency to breed back, and constant attention and the most careful selection are needed to correct this tendency before we can obtain fixity of type. But when once obtained, it can be preserved by simply using none but thorough bred animals.

Our correspondent, or any other man with sufficient intelligence and *patience*, can originate a "breed" of pigs. Generally, however, it is more profitable to procure those which are already established, and which possess the qualities that are desired. In this way, we avail ourselves of the labors of the past. If, however, we wish to improve these breeds and cross them for that purpose, the progeny, whatever desirable qualities it may possess, is not a breed. To make it such, it must be bred pure for a sufficient length of time to establish the new characteristics. This is a labor of years.

We can not think that the "breeds" named by

our correspondent can be found among the generality of farmers in his neighborhood. Some traces of these breeds may exist, but farmers as a rule do not take sufficient care to keep their stock thoroughbred. We know farmers in this vicinity, who procured thoroughbred Suffolk pigs, and kept them pure for a few years, but who to day have not a thoroughbred Suffolk on their premises. They have not taken the trouble to keep them pure. We do not believe there is a thoroughbred Middlesex or Neapolitan hog in Monroe county.

We have not seen the article in the *Rural New Yorker* to which our correspondent alludes. But there is a "breed" of White Berkshire pigs. In fact, it is not at all uncommon to find Berkshires entirely white. The most celebrated variety of White Berkshires is known as the Coleshill—bred by the Earl of Radnor, on his estate of Coleshill, Berkshire, Eng. Their color is white; their hair rather strong and thinly set; bone fine, in proportion to their size; head small and pleasing; general form very good, being square, compact, broad and proportionate, though large in frame; their fattening propensities almost unequalled.

It may be safely asserted that the modern breeds of English pigs are pretty well *mixed up*. So much so, indeed, that they are shown at the fairs of the various agricultural societies, not as distinct breeds, but under the accommodating title of "Large Breeds" and "Small Breeds." We believe this is the only classification.

BREAKING IN MULES FOR THE ARMY.—The training of animals to work in harness is an important matter in the army, as may be judged from the fact that there were lately at one time, according to the *New York World*, about seven thousand mules, as well as a large number of horses, at the depot at Perryville, on the Susquehanna. Samuel Emmons, of Philadelphia, a noted mule tamer, is training and organizing them into four and six mule teams. The breaking-in attracts much attention. Thirty-two negroes assist him, and over thirty-four mule teams are trained and organized in a day. The mules are driven into a small pen, from which they are decoyed, by a trained mule, into the stocks, where they have a bridle and collar put on, a rope to each front leg, one of which is passed through a rope round the animal's girth. Thus secured, he is let into another apartment, to receive the rest of the harness. Some "ground and lofty tumbling" generally takes place. He is then taken to the wagon where broken mules are hitched in the lead and under the saddle.

SPIRIT OF THE AGRICULTURAL PRESS.

Hessian Fly.—A correspondent of the *Ohio Field Notes* says the Hessian fly has injured some of the early sown wheat in that State.

Good Hogs.—A correspondent of the *Cultivator* states that J. C. Smith, of Butler Co., Ohio, fattened one hundred hogs which averaged 481 lbs. each, net. The year before he had one hundred head that averaged 467 lbs. each.

Beans from one seed.—W. Metcalf, of Franklin, Mass., says he raised from two beans one hundred and fifty-three pods on one, and one hundred and fifty-six on the other. The beans counted up fifteen hundred and thirty-three, or over *seven hundred fold*.

Food for caged seed-eating birds.—A correspondent of the *London Poultry Chronicle* says:—"The best food for seed-eating caged birds I consider is canary seed, shelled oats and millet, accompanied with clean water, sand and green food; occasionally a little piece of bread, or boiled carrot, potato, or broccoli, and a slice of apple or pear as a treat. Rapeseed I consider too pungent, hempseed too exciting, and both too oily to be proper for constant use."

Get your seed for spring.—The *World* well remarks: "One of the most important matters is the quality of seed of all kinds for farm and garden, and of the trees and vines which are to be planted. Without careful selection in these matters, all the preparation for grain and fruits and vegetables are lessened in value. As surely as like produces like, so certainly will not poor seed produce good crops in fruits, roots, and grain. See then, instantly, to these matters, if you have not already arranged for supplies of the best quality which labor and expense can procure; and when you have to buy, buy only from persons of well-known character in the cultivation of such articles as you may desire for planting."

Take care of your harness.—The *Wisconsin Farmer* says: "More damage is done to harness during the rainy weather of early and late winter than during all the rest of the year. Saturated with water, covered with mud, and often frozen stiff, so as to almost break when bent, in necessary handling, unusual care should be taken to keep it well oiled and hung up in proper shape when not in use. Thus treated, it will not only last many times longer, but look infinitely better than when neglected in the usual manner.

"As to the kind of oil, we know of nothing better than neats-foot, or the *daubing* used by tanners. To give the black color, characteristic of new leather, a little lamp-black may be added without detriment, though it is better not to use this until the second going over.

"Before putting on the oil, however, there are two important conditions which must be observed—cleanness and dampness. The necessity of the first is obvious, and the last is not less important, since the oil cannot penetrate the leather and make it soft and pliable, if put on when it is dry and hard.

"One of the best ways to give to the leather the requisite degree of moisture is to wrap up the several parts of the harness in wet cloth a few hours previous to oiling. But this trouble is unnecessary where washing has been

resorted to for cleaning, as the oil may then be applied before the leather is entirely dry. The oil should be rubbed in briskly with a brush or cloth, so as to insure its absorption."

The chinch bug and deep plowing.—A correspondent of the *Wisconsin Farmer* relates the following interesting fact: "An old farmer in this town told a young farmer as follows: If you ever raise a good crop by late sowing, be sure and not tell your children of it.

"I will state a fact in relation to chinch bugs and deep plowing; and *this*, perhaps, should be kept from the children.

"In the spring of 1857, I followed the common breaking plow, on prairie sod, with a common steel plow made sharp, and turned a good heavy furrow from beneath the first one, on the center of the land, being a strip about three rods wide and one hundred rods long. Since then I have taken two crops of corn and two of wheat from the field through which the three rods strip was double plowed. This year wheat grew upon it, and the three rods strip turned white from the ravages of the chinch bugs, while each side was green and growing. The lines on each side were as straight as the furrows.

"Can any one give the reasons? The only one I can find is, that in the deep plowing the bugs found better quarters by going deeper. The wheat followed corn. About three-fourths fall-plowed, and both fall and spring was done across the narrow strip."

An American apple in Europe.—The *London Florist and Pomologist*, for January, contains a colored plate of the Northern Spy apple, and remarks:

This is not at all a new variety of apple, nor one which is to be estimated on account of its rarity, for it is one that already exists in several nurseries of this country, and in not a few private collections. It is entirely for its intrinsic worth that we have been induced to select it as one of the subjects wherewith to grace the first number of the *Florist and Pomologist*. Its size and handsome appearance would alone recommend it to be grown in any collection; but when it is known that it is a dessert apple of the finest texture and excellent flavor, it commands an interest which attaches to but few even of our best varieties.

Although a native of North America, it is one of those varieties which attain their greatest perfection in this country. Even as a standard, an open dwarf, or a pyramid, it ripens perfectly and grows to a large size; but when grown against a wall or in an orchard house, it acquires a size and beauty and a delicacy of flavor which it does not when grown in the open ground. Our figure was taken from a fruit grown in an orchard-house by GEORGE F. WILSON, Esq., at Gishurst Cottage, Weybridge Heath. The tree was planted in a pot, and the fruit was set in the house; but during the summer months it was turned out in the open air, and there the fruit ripened.

The fruit is fragrant when ripe, large, ovate, inclining sometimes to conical. The skin is thin, at first of a greenish-yellow on the shaded side, and on the side next the sun covered entirely with a thin, pale, crimson cheek, which is covered with broken streaks of a darker crimson; but as the fruit acquires maturity after being kept, the shaded side changes to a rich golden yellow, and the crimson becomes brilliant. The whole is covered with a thin bloom like a grape. Eye small and closed, set in a very deep, narrow, and furrowed cavity. Stalk three quarters of an inch long, slender, deeply inserted in a wide hollow. Flesh white, very tender, fine grained, crisp, and very juicy. Juice sprightly, sweet, and with a fine, delicate aroma.

A valuable dessert apple, in use from December till May. The tree is a fast and vigorous grower, and has an upright habit. When it acquires a little age it is an abundant bearer; but it is apt to become bushy-headed, and

therefore requires frequent attention to keep the head open and free of spray.

This excellent apple originated, about twenty years ago, in the State of New York, on the farm of OLIVER CHAPIN, of Bloomfield, near Rochester. It belongs to the Spitzenburgh race, and bears some resemblance to the Esopus Spitzenburgh. Gradually it became a favorite among American orchardists, and in 1843 we find it one of the sorts which were recommended "for trial" at one of the Pomological conventions.

We cannot say much for the colored plate. it does not convey a very accurate idea of the fruit.

CARROTS FOR HORSES BETTER THAN MEDICINE.—So says a correspondent of the *Country Gentleman*—and he is right. We know a Right Reverend Doctor of Divinity who fed short-horn carrots to his horse, but was obliged to desist because they made him so frisky that he was afraid to let the ladies drive him. They are the best "condition balls" that can be used.

TO STOP BLEEDING.—A correspondent of the *American Agriculturist* writes that bleeding from a wound on man or beast, may be stopped by a mixture of wheat flour and common salt, in two parts, bound on with a cloth. If the bleeding be profuse, use a large quantity, say from one to three pints. It may be left on for hours, or even days, if necessary.

GRAFTING THE TOMATO ON THE POTATO.—A correspondent of the *Horticulturist* states that he succeeded, perfectly, in grafting a scion of the tomato upon the potato vine. He cut about one-third of the potato shoot off, just above a leaf, taking care not to injure the bud at its base. The scion, being shielded from the sun, was every day sprinkled with a little water, and it took readily. In the fall the tomato was loaded with ripe and unripe fruit, and had grown to a large size. The potato and tomato are closely allied, botanically.

FERRETS.—A correspondent of the *Prairie Farmer*, who speaks from experience, says ferrets are among the most useful, least expensive animals any nurseryman, farmer, or grain-dealer can have around their premises, in the destruction of rats and rabbits, affording to those who have them, many days of sport and recreation. We can endorse all that is said of their value in this respect. But whether they can be easily kept in our severe climate may be an open question. In England they are exceedingly useful, and few farmers are without them.

CLOVER AND GRASSES ENRICH THE SOIL.—The *Maine Farmer* well remarks: "Plowing under a thick, heavy grass sward furnishes an ample manuring for several successive grain crops. The decomposition of the abundant roots and stems of the grass supplies nutrition for growths of a different character, and having a greater money value to the farmer. Hence it may be good policy for the farmer to give a large share of his labor and attention to producing a heavy growth of grass on all lands when devoted to this crop, knowing that this most cheaply and effectively prepares his soil for the production of other crops." This is true, especially in the case of clover.

MICE AND FRUIT TREES.—A correspondent of the *New York Observer* says: "DAVID THOMAS, of Cayuga county told us in the *Genesee Farmer* a few years ago, that trees should be well banked up with dirt in the fall before snow. I have always found this to be a good remedy." The editor of the *Observer* truly remarks that "when

banking with dirt has been neglected, tramping the snow compactly around the trees will turn the mice away." We had written thus far, when one of the most experienced fruit-growers of western New York came into our office. "What is the best way to keep mice from fruit trees?" we asked. "Bank them up." What is the next best? "Stamp the snow around them."

AGRICULTURE IN 1900.—MAXWELL'S *Sighs, Smiles and Sketches* gives the following amusing sketch of Agriculture in Devonshire, Eng., at the present day, and what it may be in 1900:

A. D. 1861.

Come, wife, 'tis time for we to rise,
The clock is striking five;
Be quick and get the tates fried;
Now do, lass, look alive.
I've got to put my barley in.
And now the first of May's come;
I don't know how us shall get on,
If many rainy days come.
I've got to cart out all my dung
And lime to till the tates;
The land's as wet as wet can be.
How bothered my poor pate is!
There's Brisk and Boxer cruel galled,
And Tidy Mare is gripy;
And oats are down, and wheat's a'valled,
And Roger's always swipy;
And all the sheep have got the scab,
And wool's a g'ing down;
And I've to draw my produce in,
Vul fourteen miles to town.
And Lady-day's a'come and gone,
And I've not paid my rent yet.
And Bill, and Jan, and little Joe
Ha' ne'er to school been sent yet.
Us can't get on it times don't mend—
'Tis raly quite alarming;
I only wish my lease was out,
I'm zure I'd give up farming.

A. D. 1900.

Matilda! order chocolate;
It's nearly ten o'clock;
And getting up at half-past eight
Is really quite a shock.
I worked so hard till nine last night,
To prove that last analysis,
That, should my brain be further tried,
I really fear paralysis.
Well, I'll just take a quiet ride:
James, bring my locomotive—
That half-horse power, with trotting spring;
Of health 'twill be promotive.
And, James, do fetch a gallon of
Concentrated Thames-water;
I'll just top-dress my cucumbers—
Five acres and a quarter.
Well, here I'm back; I've been all round;
The farm is looking splendid.
What fools they were, some years ago,
To work as hard as men did!
I've heard my grandsire say, his dad
Met with some dreadful losses:
No wonder, when they used to work
With those great horrid hoes.
And, James, just touch the telegraph,
And bid my engineer
Turn out six dozen plows next week,
To get the 'breaches clear!
And tell Professor Faraday,
And my sub-chemist, Jones,
To forward, by next Monday's post,
Their last extract of bones.
'Tis time I got my turnips in;
I should not like to mess it;
And as I've only one square mile,
There'll be enough to dress it.
And, James, do turn the battery on,
The wheat is just in flower,
And give it one galvanic shock,
It wants a gentle shower.
And syringe all the cabbage plants
With ess-nee of guano;
And ask Miss Jane to milk the cows
With the new "vaccine piano."
And, James, fetch down my last balloon,
With speed-retarding crupper;
I'm going to Barnet fair to-day,
And shan't be back till supper.

SORGHUM SYRUP.—The *Prairie Farmer* estimates that 2,500 barrels of sorghum, or Chinese sugar-cane syrup, were made in La Salle county, Illinois, last year.

A HEAVY HOG.—The *Boston Cultivator* says: "Dea. S. BURNHAM, of Dunbarton, N. H., lately killed a hog, short of 20 months old, that weighed 675 lbs. It gained on an average about 2 lbs. a day.

LARGE HEIFER.—The *Boston Cultivator* mentions that R. W. FIELD, of Lanesboro, Mass., slaughtered on the 10th ult., a two-year old heifer that weighed, dressed, 830 lbs., and had 100 lbs. of rough tallow.

PROLIFIC SEEDS.—The *Boston Cultivator* says that N. W. HOLMES, of Nottingham, N. H., raised in his garden last year from one bean, 415 good beans; and that a cluster of 18 beets from one seed was grown last year by J. LOVERIDGE, of Heath, Mass.

PRESERVING GAME.—The *London Sport* gives the following receipt for keeping game a long time: "Dry up the wound with blotting paper; wrap up the head and soak the body in coffee. Afterward the game will not suffer from the most unfavorable temperature."

OILCAKE VS. OATS AND BARLEY.—The *Irish Farmer's Gazette* says: "It is unquestionably true that oats or barley are more nutritious, weight for weight, than linseed cake." We question it, and would respectfully ask our cotemporary for the proof of his assertion.

WEIGHT OF PRIZE GRAIN IN IRELAND.—At the last winter show of the Royal Dublin Society, the prize wheat weighed 61 lbs. per bushel; barley 57 lbs.; white oats 42 lbs.; and black oats 40 lbs. We can raise better wheat here, but the barley and oats are much superior to any raised in America—at least that we have ever seen.

LARGE EGG.—The *Orleans Republican* says D. B. KELLOGG, station agent at Holley, has sent to that office a monster egg produced by a hen owned by him. The egg measures six and a fourth inches in circumference the shortest way around it. The hen that lays such eggs must be a great goose, when a smaller size would be just as much an egg.

PRINCE ALBERT AND AGRICULTURAL PAPERS.—The *Irish Farmer's Gazette*, in alluding to the lamented death of the Prince Consort, says: "We had the honor to receive his support as a patron of, and a subscriber to, this journal for nearly twenty years, and he unquestionably evinced at all times, a deep interest in the advancement of agricultural knowledge in this part of the Kingdom."

THE OSAGE ORANGE AS A HEDGE PLANT IN ENGLAND.—A correspondent of the *London Journal of Horticulture* states that Mr. RINGWAY at his county seat in Kent, England, is trying the Osage Orange as a hedge plant, and that he is sanguine that it will make a firm, useful, good hedge. Its shining green foliage looks well in summer, and being covered with thorns it is better adapted to resist the nibbling attacks of cattle than most other plants.

BUTING HORSES FOR THE FRENCH CAVALRY.—McCLELLAN, in "The Armies of Europe," says: "Horses are purchased at from 4 to 7 years of age, and must be of French origin. The animal is brought to the commandant of the remount depot, and submitted to his inspection, without any price being named. If the commandant finds him

unsuitable, he is at once rejected; if the contrary is the case, he is brought before all the officers of the depot for a thorough examination. Each officer then writes his estimate of the value of the animal on a slip of paper; these papers are placed in a hat and shaken up, so that the estimate of each officer may not be known; the mean of these estimates is then taken, and the commandant offers that price for the animal. If the owner accepts the offer, the price is paid at once; if he refuses, the horse is at once sent away, for no bargaining is allowed."

A FORTUNE FROM A SHEEP.—A correspondent of the *Boston Cultivator* relates the following anecdote:

"In 1802, Mr. BIDWELL, a law student in Stockbridge, told a poor lad that if he would catch and turn out his horse he might have it to ride home to keep Thanksgiving. The boy accepted the offer, and the day before Thanksgiving, as he was mounted on the horse ready to start for home, Mr. BIDWELL handed him a silver dollar—the first dollar the boy ever had. Instead of spending it for personal gratification, as most boys now-a-days do, he bought a sheep with it. From that sheep he had, in 1832, a flock of 1064 sheep which he sold for 1506 dollars. The money he invested in up-town lots in New York city, purchasing ten lots for 250 dollars each, which he sold, in two years, for 12,000 dollars. This was the beginning of the fortune of NATHAN JACKSON, Esq., distinguished for his generous and munificent donations at various times to Williams' College, Mass."

"When a boy, the writer, with his brother and sister, each had a sheep given them, and their father kept them, and retained half the increase for keeping, thus affording an opportunity for procuring a little money which he and they could call their own. Myself, and brother, also, were allowed, each, a piece of ground to cultivate as he pleased, and were permitted to sell the products thereof for what they would fetch. In this way we were allowed to get money that we could call our own, it being the product of our own skill and industry. The brother of the writer is now a successful and forehand farmer in Worcester county, Mass., and the writer has a farm in Hampshire county, Mass. How much these early lessons in rural industry and economy had to do with their present position can never be accurately estimated. Doubtless something and perhaps much. All farmers will find it a pleasant way thus to encourage their children by giving them an opportunity, by exercising skill and industry, to produce something they can call their own.

HOW TO PRESERVE POTATOES AT SEA.—Captain GILBERT SMITH, of the barque *Martha Wenzel*, has communicated to the *Yarmouth (England) Register* a method by which he succeeded in preserving potatoes at sea during long voyages. "To preserve potatoes," says Captain SMITH, "put them into a pen on deck, the door of which must always be kept open in good weather. Scatter over them a quart of air-slacked lime to every twenty-five bushels; pick them and rub off the sprouts once every month. Put up and kept in this manner, they will remain good five or six months." On the first of August, 1861, he says: "I have now potatoes on board that were taken in at Melbourne, Jan. 20th; the vessel since has been to Calcutta, Chinchas, and is now within a few days sail of Bourbon and Mauritius; consequently the potatoes have been on board, and daily used for six months and ten days, and for cooking purposes, they are as good now as when taken on board at Melbourne. I would further add in this matter, that if potatoes were taken out of the damp cellars in the spring and put in some dry out-building with a good circulation of air, and a little lime mixed with them, they could be kept until July and August in a good state of preservation."

MANAGEMENT OF HONEY BEES.

ITALIAN HONEY BEES.—Much has been said during the last two years in regard to Italian bees, which were introduced into the United States as being preferable to our native bees. There are no families of these bees for sale, but they are propagated by the sale of Italian *queens* only, at prices ranging from \$8 to \$10 each.

My opinion has often been asked in regard to the value of these over our common bees, but I have been unable to reply from my personal experience with them; yet I think my opinion of them will be found, in the end, to be nearly correct.

In the first place, on the introduction of these Italian queens I was suspicious that *speculation* was at the bottom of it. I sought all the information that could be obtained in regard to them, read all the rural publications, heard all the arguments in their favor, from that day to this, and still my opinion is that there is quite as much *humbug* in Italian queen bees as there are merits over the native species.

It may be said, with some show of plausibility, that inasmuch as I have had no practical experience with these bees, my opinion is not entitled to much respect. To this I reply, that I profess to be a pretty correct studier of human nature, and to be able to detect humbugs, in many cases, without any *positive* proof of their demerits. I reason in this wise: How does it happen that a species of honey bee should have been in existence in Italy for centuries, far superior to our native bees, which are the same as all others in Europe except the Italian stock, and yet none of the writers on the honey bee in Europe during the past hundred years have alluded to that species as being worthy of culture? Indeed, it is not mentioned at all by any of the modern English, French and German authors, which is a significant fact, that this species is of no particular value.

Again, it seems to me to be hardly possible for so valuable a species of honey bee, as it is pretended they are, to have remained wholly unknown to the best apiarians of the old world, and the new, till the year 1860.

Being deeply interested in the *profits* accruing from the labors of honey bees, I should have been one of the first purchasers of these Italian queens if I had been led to believe that they were any better than others; and in giving my opinion on them, I do not say that I am infallible, or that possibly I may not be mistaken; but the whole thing does really look suspicious, and if I can do the public any good by warning people of humbugs, I think that I shall be considered engaged in a laudable business. Some years ago, on the introduction of the famous, or rather infamous *Dioscoria Batata*, or Chinese yam, I did all I could to put the public on its guard; and I have good reasons for believing that there are hundreds of people who are indebted to me for not having their pockets heavily taxed for an article not worth receiving as a gift.

I have noticed that the laudations (puffs) of Italian bees come from parties who have *queens for sale*. I scarcely see a word in their favor from disinterested sources. But still, as I said above, I may be in error, and these bees may be all that is claimed for them.

Ten dollars, these times, will almost buy a cow, and to pay that sum for a queen bee, and a few workers which

can, at best, be only half-breeds, is what I think the readers of the *Genesee Farmer* will be slow to do. If these bees are valuable, they will be rapidly propagated, and in a few years the price will be down to a reasonable sum, when bee keepers will be able to obtain them at their actual value.

It is said that the Italian bees are larger than our native varieties, more hardy, stronger, and are able to gather honey from some kinds of flowers from which the common bees are excluded. It was originally said that they could extract the honey from red clover blossoms, but I notice that this assertion is contradicted. If they can reach the honey in that variety of clover, I shall be inclined to withdraw a large portion of my disparaging remarks in regard to them.

HOW FAR DO BEES FLY?—The question is frequently asked, "How far do bees fly in search of honey?" There are instances in which they go three or four miles, when the weather is warm and no winds exist to obstruct their flight; but the average range of a family is in a radius of about three miles diameter. If we could place a hive of bees in the centre of a desert or sandy plain, three miles in diameter, I do not think that they would be able to gather honey enough to survive, even if a great supply were to exist at the usual season on the immediate borders of said plain.

In consequence of the flight of bees being thus restricted, it is possible to overstock any district, in the same manner as a farmer can overstock a pasture with cattle. I consider about one hundred families enough to stock any location, where no other bees exist within a mile and a half of the apiary. In some places, this number will be too large where the bee pasturage is poor, but in the best districts one hundred hives can be profitably kept, even if a few other small apiaries exist in the vicinity.

It is surprising to see what a vast quantity of honey might be gathered in any State if we had a sufficient stock of bees, properly distributed. I have no doubt that enough honey is lost every year, for the lack of bees to gather it, which, at fifteen cents per lb., would pay the entire expenses of our government in ordinary times.

Clinton, N. Y.

T. B. MINEE.

KEEPING EGGS IN ASHES.—Some time ago, I read in the *Genesee Farmer* of eggs being found in an ash bed, where they had been kept for two years, and when found were as nice as when fresh laid. The writer thought it would be well for some of your readers to try the experiment and give the result. Well, thought I, it looks reasonable, and how much labor it will save of greasing (which was my usual successful way of packing). So I packed my eggs in nice, clean ashes, and it was but little work, at the same time telling my particular friends how cheaply I was going to keep my eggs. When Thanksgiving came, eggs brought a good round price, and now was the time to sell; but when I came to break my eggs to try them, they looked as though they had been partly boiled, and they were well saturated with lye. My neighbors have had the same luck. Who shall we lay our loss to? I would like to know how your correspondent succeeded in packing his eggs. Will he please write and let us know? MRS. A. J. S., *Armadilla, Mich.*

CULTURE OF WHEAT IN MONROE COUNTY.

S. EDWARDS TODD, a well-known agricultural writer, spent a few days last Autumn in this vicinity and furnishes the *Country Gentleman* some interesting letters in regard to agricultural matters in Monroe County. We copy a portion of his remarks in regard to the culture of wheat:

When a piece of woods is cleared off and the ground simply harrowed thoroughly, without plowing, and it is sowed with winter wheat, the soil must be uncommonly wet, and the winter must be very unfavorable indeed if that wheat is much injured by freezing and thawing. And there is a very cogent and philosophical reason why winter wheat is injured less by freezing and thawing on such soil than it is on old ground.

We all know that when we set a stake or post perpendicularly in the ground about one foot deep, the frost will soon heave it to the surface; but when it is set at an angle of forty, or forty-five degrees, it will remain about as deep as it was originally set until it is rotten; because as the soil freezes and thaws it is lifted with and settles back with the soil.

The sod of grass ground is raised by the frost bodily, and settles back bodily when it thaws, and for this reason the roots are not all lifted out by the freezing and thawing in winter.

Now when wheat is sowed on new land that has never been plowed, the roots spread out almost horizontally on the surface of the ground, and thus form almost a complete mat, so that when the soil is expanded from freezing, it is raised bodily, roots and all, and thus it settles back, when it thaws, to its original position, without severing any of the roots of the plants. In new land that has not been plowed, a large proportion of the vegetable matter and the elements of fertility are near the surface of the soil, and consequently the roots spread out horizontally much more than they do vertically. But when the soil is deep, and the vegetable matter is thoroughly incorporated with it, and when the elements of fertility are more abundant six or eight inches below the surface than near the surface, the roots will strike almost perpendicularly downward. Therefore when two or three inches of the surface of the soil comes to freeze, the plants are lifted, and the roots must either give way at the lower ends, or be severed just below the frozen earth. It is easy to perceive, when such is the case, why and how readily the wheat plant is injured and thrown out by freezing and thawing in the winter or spring.

Reasoning from analogy on the subject, most good farmers in Monroe county, who have a reputation for raising the best crops of winter wheat, adopt the practice of

MANURING THE SURFACE FOR WINTER WHEAT,

in preference to mingling the manure thoroughly with the soil, as deep as it is plowed. By plowing the soil to a good depth once, and by working only a few inches in depth of the surface—rendering it fine and mellow—and by spreading finely pulverized compost on the surface, and simply harrowing it in about the time the grain is sowed or drilled in, the roots for the most part, will strike out hori-

zontally, or nearly so, and will become so thoroughly interwoven with each other near the surface, that they are not drawn out at the surface as they are when they strike down nearly vertically; but the entire soil rises and settles back in the same manner as sod ground does, without heaving out the plants.

I have made particular inquiry of those farmers who have adopted the practice of manuring on the surface, in every locality where I have traveled during the past season, and I have found that in most instances they are satisfied that winter grain will not suffer so much injury from freezing and thawing, when the manure is well rotted and spread thin on the surface, and harrowed in about the time when the grain is put in, as it will if the manure is plowed under.

A TALK ABOUT THE WEATHER.

"Good morning, neighbor Smith."

"Good mornin'. Aint this awful cold?"

"Yes, pretty cold, neighbor; but the high wind makes it appear colder than it really is. The coldest we have yet had was four degrees below zero."

"It seems to me as if it was the coldest I ever knew it."

"Oh, no; don't you remember the cold Friday of last winter? The mercury then sank to thirty-two degrees below zero, which was the lowest temperature I ever recorded. These first five days of January have not been unusually cold, but very uncomfortable, from the fact that the wind has blown a gale from the north. New Year's day, you know, was warm and rainy, the thermometer marking thirty-five degrees at six P. M. During the afternoon, I noticed the barometer fell unusually fast until, at six P. M., it was down to 2.50 inches. Well, the wind hauled to north, and began blowing a gale at nine P. M., and continued so until noon of the fifth. The mercury in the thermometer sunk during the night of the first to four degrees—a very sudden change of thirty degrees."

"I thought my stock would freeze, and seemed to me they ate a quarter more than usual."

"They tell about having barns too tight and warm for stock, but I don't believe in it, neighbor. Of course there may be such an one, but there aint one in this county. When the manure behind the cattle freezes, I know the 'tie-up' aint too warm to be comfortable; and, as you say, it does take a good deal more fodder for stock during the cold weather. The colder the barn, the more it will cost to keep the 'critter,' and the reason is just this, neighbor: A certain amount of heat is required for the body of the animal. The food consumed is what makes or supplies that heat, and if the air that surrounds the body be very cold, a greater amount of heat is withdrawn by contact, and to supply this amount a greater quantity of food than usual is required."

"Well, I don't know how that is; but I know that my stock take right hold of almost anything, poor hay, stalks and straw. Does your barometer always tell when the wind is going to blow hard, and about storms too?"

"Yes; every change in the atmosphere is followed by a corresponding fluctuation of the mercury in the tube of the barometer. It falls the

lowest and quickest before a high wind, whether accompanied by a storm or not. During and preceding fair weather, it rises and remains the highest. As a farmer, I find it very valuable during the summer season, particularly during haying-time, when I watch it closely, as it always gives a few hours notice of rain storms and thunder showers. I remember one time last summer; it was very foggy in the morning and had all the usual appearances of a storm, but the barometer said 'fair,' as the mercury was rising. We mowed all the forenoon, and at noon the fog broke away and we had a fine afternoon to get up the hay in, while neighbor Jones kept his whole crew 'laying still' all the forenoon for fear of rain."

"I always thought I could tell pretty near what kind of weather was coming."

"Well neighbor, if there is any one thing I have learned during several years of weather observation and record, it is to be very careful about foretelling weather but a few hours in advance."

Belfast, Maine.

GEO. E. BRACKETT.

THE FARMER IS KING.

"COTTON is King," said a Senator. "Nay," said another, "Gold is King." Nay, say we, the Farmer is King! A monarch is prepared for his throne by a careful education. But who is nurtured with such an education as the farmer? He is nursed in the strong embrace of prolific, many-handed Nature. Our mother Nature keeps the wisest school. Great Nature—rude, yet gentle; stern, yet kindly; terrible, yet loving; frugal, yet bountiful. We almost believe that no men can be God's great men, unless nurtured in the strong embrace of our great mother on the bosom of the earth.

All men should, some time in their lives, live out in the midst of Nature and till the soil. He who has been born and reared and who lives in a city, debarred the privilege of communing with Nature, is most unfortunate. He can never be a whole man. He lacks the stern poetic teachings of this great school. Nothing can compensate for it. "An undevout astronomer is mad!" exclaimed a wise man. An undevout farmer is a monster! we exclaim. What! can the husbandman receive his food direct from heaven—its rains, and dews, and sunshine; it smiles over him in the blue and spangled vault, sun and moon and star lit; all around him in the wavy grass and grain, the many-tinted flowers; in the voices of the wind and the bending trees; underneath him, in prolific, fresh-turned soil—and still be a monster, out of tune with outer and inner Nature? Who lives so far from temptation? Who lives so nigh his Creator? enwrapped all about with his arms—fed from his dazzling, munificent hand. He sleeps between the leaves of God's pictured book—the Universe.

"He loved husbandry," is the encomium that inspiration pays to one of the best Kings of Israel, and who had one of the longest and prosperous of reigns. "UZZAH, the King," says the sacred writer, "dugged many wells, for he had much cattle; husbandmen also, and vine-dressers in the mountains, and in Carmel, for he loved husbandry." If this could have been said of his successor, the Jews had not been parted and scattered, as at this

day, among the nations. As long as it can be said of the sovereigns of these States, "they love husbandry," the Republic is safe. Small farms grow true patriots. The wealth of the Republic must be a common wealth. It is the nature of power to seek to increase itself. When monarchs increase in power, it is in bald words the growth of tyranny. Not so the King Farmer. His tyranny is over barrenness. He smites, and lo! the sterile earth groans; but it is with abundance. He brings his enemies to the faggot and the stake; but they are the thistle, the dock, the daisy and the briar. He overruns and subdues the territories of his foes; but they are the swamp and the quagmire. He plows up the very foundations of the strongholds of his destroyers; but they are the deadly malaria, the stinging insect, and the fanged and poisonous reptile. The earth is his slave; but it is the slavery of love, for it buds and blossoms before him, and the trees clasp their hands for joy for him. He chains his servants to do his will; but they are the elements, the huge and willing ox, and the majestic horse, impatient to do his bidding, and championing for the word that bids him go.

When the monarch Farmer raises himself on high and stretches his scepter abroad, cities spring up under its shadow. The sound of the spindle, the loom, the anvil, and the ponderous foundry and mill are heard. The hum of the industrious multitudes comes up like the voice of many waters; white-winged ships fly over the unstable main; men cast aside their hides and fig leaves and are clothed in imperial garments, and women are arrayed in fabrics fine as gossamer and many tinted as the sunset cloud. Penury, pestilence and famine he keeps bound in his prison-house. Labor stands in the door of his magazines, and in his stalwart hand he holds the scales of human life, and weighs out the supplies of trade and art, and artists and armies; of school and church and state; food and raiment, abundance and luxury. He deals out the progress of human kind. THE FARMER IS KING—the Monarch of men.

C. N. BEMENT.

New York, 66 East 29th street.

Pretty good—though emanating from the city of New York. But our esteemed correspondent has been long a farmer, and loves the country and doubtless sighs for its quiet enjoyments.—EBS.

THE FLAX AND LINEN TRADE OF IRELAND.—Belfast, the great emporium of the linen trade, exported in 1860, 65,600,000 yards of linen and 13,200,000 lbs. of yarn and thread. Next in importance to the flax industry, is the trade in sewed muslins, employing about half a million of persons in Ireland. Another manufacture carried on in Belfast is important in the consumption of agricultural produce—namely, starch making from wheat. Ten firms use nearly 240,000 bushels of the finest red wheat every year. The wheaten starch made by the old fermentative process, is largely used by bleachers, the goods retaining their stiffness longer than if dressed with the rice and other starches. The whole of this business is at present nearly paralyzed, as America was the best market for Irish linen goods, very limited quantities of which have been imported during the past nine months.

NOTES ON FIELDS AND CATTLE.

SUCH is the title of a gossiping book on farming matters, recently published in England, from the pen of Rev. W. HOLT BEEVER. A few extracts will be read with interest.

THE COW.—“However, whether we will it or no, we must believe that there exists a cousinly bond between the savage bull of Central Africa, lying sulkily in wait for the unwary traveler; the cunning bison of the American savannah; so deeply ensconced amidst the reeds of the sunken water-course as to be distinguishable only by its hump—the hunter’s prize; and yon meek-eyed dapple milch cow there, sheltering knee deep in the brook beneath a verandah of ash branches, reflectively whisking off the flies from her flank with her tail—so utterly regardless, meanwhile, of the aged female above, gathering cresses for the hall, in the red cloak the young ladies have given her. A certain amount of relationship, such as YOUTAT suggests, one may imagine between the sharp-eyed black group there, the like of which Macgregor drove, that peer down so curiously from beneath the thick fringe upon their foreheads at the intrusive pedestrian; between the long, active bull—that is so apt to cut off or precipitate the salmon-fisher’s retreat by the tempest-torn passage of the Awe—and the Urus of the Hercynian forest, mentioned by Cæsar—elephantine, untameable—whose horns, polished and tipped with silver, they were wont to use for the grace-cup at their solemn festivals, and whose direct lineal representative is probably the modern lichen-eating Lithuanian auroch; but how ever came the connection between the yak of Thibet and the improved Durham cow, it is beyond us to conceive: the one there, fronting so complacently the frocious gale, on his exalted lair among the pointed rocks—with back exposed to the pitiless storm, bare as the traveled trunk of a bygone generation—being contented, apparently, with the rug wherewith nature has considerably enwrapped his nether limbs, in everlasting compensation, it would seem, for his obligatory existence on those icy Asian wastes, where litter must be scarce; the other, with such queenly calmness, scarce observant of your entrance—chewing quietly the cud across her recumbent calf, as the world renowned baliff of Townley rolls back the door of her stall—on whose mellow cubic form you can detect no shade or hollow, and the elastic padding of whose meat-clad ribs your finger dents in vain.”

THE HORSE.—“Your young ones, you can not keep too well. When weaned, which should be, both for their own and their mothers’ sake, but especially the mothers’, about September, give them plenty of new cow’s milk, diluted somewhat with water, crushed corn and bean-flour, with Swedes to make them bone, a few white peas, and a lock of the sweetest upland hay. This, with gentle caresses, should daily be the lot of the young one in his paddock and shed. After all, what is it but so many pounds put out to interest? Starve a colt in his first year, and he is spoiled for ever. No subsequent treatment, however judicious or generous, can redeem the neglect of his early youth—the sinking loin, the worn look, the spindle shanks, too surely attest the treatment he received in infancy, what-

ever his original calibre may have been. In fact, whatever be the stock, ’tis keep and shelter that tell in the end. Look even at that draggle-tailed Elspeth upon the stack there, doling out their pittance of mouldy hay to a couple of depressed Hereford heifers. Two years since, by courtesy Maria, she was a stylish housemaid at the castle; to-day she is the desponding partner of a too adventurous young farmer. Better had she known when she was well off. In illustration again, only to-day I noticed a red-breasted flunkey fetch in a pair of grumbling, shiny, broad-backed porkers, which, only two months ago, I deemed too dearly bought for a pound apiece. While on the other side of the road, with the last sole surviving item of her starved litter crawling after her, there cropped the scanty grass a sow, the fac-simile on a giant scale of a young mouse—flap-eared, hairless, lank—what a few months since was a farewell gift pig, bought out of a prize Yorkshire small-breed lot, and presented to an old man in our village by his son, an artisan, upon his leaving for Australia. What a various fate hath befallen them! The one of aristocratic lineage reduced to the poor-house; the other, born in a cot and advanced to aldermanic plenty. On large farms, where the fields are thirty to forty acres each, or upward, in extent, a team of bullocks pays well, there not being the loss of time in turning on such ground, which is one chief reason of complaint against the practice of plowing with oxen; but there must be in addition a sufficient number of horses to do the road work.”

THE PIG.—“*Sus scrofa, cochon, verrat.* Generic character—snout elongated, etc.; specific character—back bristly, tail hairy, etc.’ Shades of MORLAND, WILEY, FISHER HOBBS! Whatever will ye exclaim at such teaching on the part of Mr. YARELL? How doctors have come to disagree hereupon! How diametrically dissimilar the idiosyncrasy of those, sleek, rounded representatives of porcine civilization which are being annually imported from the yards of the famous Mr. CRISP for crossing with the produce of Prussia and Russia, to the probable future damage of the present trade in bristles. To be practical, however: this interesting native should be, as everything else upon the farm, first-rate—broad, lengthy, deep, short-snouted, of fine bone, with tail well set on; a thin pricked ear, and skin gathering in folds even to the hock to be plumped out before Christmas, and of a breed that will fatten on clover, grass, or vetches in summer, mangel wurzel in winter, sliced and slightly sprinkled with barley-meal. Innumerable are the excellent varieties of breed now-a-days possessing such characteristics. Wherever he may hail from (and hail he does lustily on occasion, as you may learn for yourself if you attend an embarkation of them at Liverpool or Cork), whether from Berkshire, Essex, Yorkshire, Suffolk, Tamworth, Windsor, Hampshire, Dorset—each county and district almost having its improved breed, all supremely indebted to a Chinese or Neapolitan forefather—you will have no great difficulty in obtaining what you want. To Herefordshire was due the pork provision when the Duke was in the Peninsula. Grudge not a few extra shillings (which you may easily save by traveling third-class a journey or two by way of change) in the purchase of an exemplary sow-in-pig to begin with. It is a

loss of time to buy second-rate stock, however excellent your judgment may be, for the purpose of improving it. Climb as far as you can on the shoulders of others who have pioneered before you, and then take up the path. You will be passed in turn, never fear, by some one now a small boy munching at a crust. Start, however, as forward as you can, and do your best while your hour lasts."

SHOWS OF FAT STOCK.

THE two principal shows of fat stock in England, viz., that of the Midland Counties' Association, and that of the Smithfield Club, took place the last week in November and the first week in December—the former at Birmingham and the latter at London. These shows are interesting to American farmers, because the breeds of cattle, sheep and swine which are held in the highest estimation are at them extensively exhibited, and their relative merits to some extent tested.

At the Birmingham show, the gold medal for the "best ox or steer" was awarded to a Short-horn owned by Mr. TAYLOR, of Bridlington, Yorkshire, and that for the "best cow or heifer" to a Galloway, bred by the Duke of Buccleugh, and owned by Mr. M'COMBIE, of Aberdeen, Scotland. The last-named animal was also awarded a silver cup, as "the best of all the cattle," without regard to sex. These awards may be taken as showing the relative merits of all the cattle exhibited, as all competed, or might have competed, for these prizes. The Herefords and Devons, it is said, "were not up to their established excellence," but the Short-horns made a fair representation, although, as has been stated, a Short-horn was not the best animal in the show.

But we pass to the show of the Smithfield Club, an association of upwards of sixty years standing (founded 1798), whose exhibitions have long attracted the attention of the agricultural world. Until within a few years, all breeds of cattle have here competed for the same premiums; but a change was made by which separate classes were formed for different breeds, and there is a general competition for the gold medals offered for the best ox or steer, and the best cow or heifer. Up to this time the shows have been held in London, but the Club, for various reasons, has provided for itself new accommodations at Islington. The competition for the gold medals on the present occasion, resulted in bestowing that for oxen and steers on the Short-horn of Mr. TAYLOR, which carried the same honor at Birmingham, and that for cows and heifers on a Short-horn of Mr. FAULKNER, of Burton-on-Trent, which also stood first in the Short-horn class for cows and heifers at Birmingham.

The Galloway heifer which was declared to be "the best animal in all the cattle classes" at Birmingham, competed for the gold medal of the Smithfield Club offered for the best cow or heifer, but was set aside by a cow which at Birmingham was deemed inferior to her. The award of the Club gave rise to criticism. The *Mark Lane Express* asks: "How can it be that Mr. FAULKNER's Short-horn cow has been permitted to step before the Scot?" Describing the latter, it is said: "Not only is her form perfect—back, rib, shoulder-point, breast-end, hip, loin, flank, and rump—but her thigh and twist are wonderful, the rounds of beef

full and heavy to the very hocks; her head is beautiful, exactly characteristic of the breed, her coat just what it should be, and she handles like what she is, a magnificent feeder, of a quality worth something to the butcher, and calculated to make the appreciative epicure smack his lips. In proportion to her symmetrical figure elsewhere, her girth forms her weak point; but even this is 8 feet 9 inches, at 4 years 10 months old." The girth of Mr. FAULKNER's Short-horn cow is two inches less than that of the Galloway, although she is a full year older."

We commend the remark in regard to the beauty of the head of this animal being "exactly characteristic of the breed," to persons who think the Galloways are generally "sour headed;" and would also call attention to the size, as indicated by the girth, for the enlightenment of those who, without personal knowledge of the breed, frequently speak of the Galloways as "small," "diminutive," etc.

As a class, the Short-horns maintained the reputation of the breed at the show of the Smithfield Club. Of the Herefords, the *Mark Lane Express* says: "We have no excessive praise to bestow this year." Only 15 of the breed were exhibited, but some of them were highly spoken of. The Devons are spoken of as being "as pretty as ever, and this year in some instances combining splendid quality of meat with greater size than is sometimes seen." Earl Howe's steer, 3 years and 10 months old, girted 7 feet 10 inches. No Long-horn oxen or steers were exhibited, but two cows of the breed were shown which proved what this old breed, always celebrated for the dairy, is still capable of in the way of beef. Mr. BURBERRY's first-prize cow, 7 years and 8 months old, girted 7 feet 7 inches, and was pronounced a model of what the breed should be. The general show of Scotch cattle, which it is said "the London butchers take delight in, and which get so fat in our midland and eastern counties pastures," made a fine display. Mr. M'COMBIE's polled Aberdeen ox, 4 years and 8 months old, girted 9 feet 5 inches, and the Duke of Beaufort's West Highland ox, 8 feet 6 inches.

The sheep comprised specimens of the Leicester, Gotswold, Lincoln, Kent or Romney Marsh, Cheviot, South Down, Shropshire Down, Oxford Down, and the Exmoor—the latter new candidates for favor at the shows of the Club, and very highly spoken of as to quality of flesh. Mr. FOULJAMBE's prize Leicester wethers, 20 months old, are said to have girted 5 feet 7 inches each.

Of swine, the Suffolks of Mr. CRISP, the Berkshire, the improved Dorset, improved Hampshire, etc., appear to have been fine.—*Boston Cultivator*.

SORGHUM SYRUP.—An establishment for refining Chinese sugar cane syrup is now in successful operation in Chicago, Ill. It is specially devoted to the making of syrup (not sugar), which is equal, it is stated, to that obtained from sugar cane. The company offer to receive crude syrup from farmers, and refine it for ten cents a gallon. The syrup is first placed in a copper pan, and when it commences to boil a small quantity of lime water is added. After this it is strained through canvas sacks, then filtered through animal charcoal, and afterward concentrated in the vacuum pan at a temperature of 160° Fah.

CULTIVATION OF FLAX.

At a recent meeting of the New York Farmer's Club, the following discussion took place in regard to the cultivation of flax:

Mr. CARPENTER gave his opinion that this was one of the most important questions that has ever been brought before the Club. Flax should be sown about the 10th of May, on well-prepared soil, about half-a-bushel an acre. Flax fiber mixed with cotton improves both.

Prof. NASH—The flax crop is grown at the West for the seed alone. When I was a boy every family used to grow flax enough to make cloth for domestic use, all over New England. It requires a strong, heavy soil, and is very exhausting—so much so that grass did not take well. If sown for seed, or to use the fibre for coarse cloth, half-a-bushel per acre is enough. For very fine fabrics a bushel and a half per acre is sown. Plow about May first, and make the surface very smooth before sowing. It is pulled as soon as a part of the seed is ripe, and dried, and the seed beaten off, and then spread on grass to rot, so that it can be dressed.

Dr. TRIMBLE said that the culture of flax has been abandoned in a great measure by the Pennsylvania farmers, who used to grow enough for all family use. But cheap cotton has driven out flax, because the labor was so great it could not compete with cotton. It will not be revived unless the great labor of its preparation can be done by machinery, at a cheap rate; that is the great difficulty in the way of inducing farmers to extend the flax culture.

Mr. GALE—There is still a great deal of flax raised in Pennsylvania, and in the interior of this State. It is now prepared by machinery that obviates the most of the disagreeable hand labor of the old time. Farmers are content to raise flax at about twelve cents a pound. There is no trouble about growing flax; the only question is about being able to produce it as cheaply as any other fibre, whether cotton or silk. All the business of dressing flax is very dirty and disagreeable when done by hand, and most farmers prefer to raise other crops, and buy substitutes for linen cloth.

Mr. CARPENTER stated that it does not require a very strong soil to grow flax, nor does it exhaust the land any more than other crops, and he wants to see the cultivation greatly extended, and hopes that this Club will lend its influence to promote this object.

Dr. JARVIS—Without doubt, cotton is not as healthy as flax. If flax is dirty at first in its preparation, cotton is always so through all its wear; it is giving off fine particles of dust that fill the air of our houses, and injure the health of all who use cotton cloth. He thought in every sense of the word, cotton has been a curse to the world. It is not as healthy as flax for any kind of clothing, particularly bedding, and he thought the world would be greatly benefitted by the use of flax, to as great an extent as it now uses cotton.

Mr. HENRY—I had supposed that rotting, and breaking, and swinging, and hatching flax, were among the antediluvian notions of the world. As to flax exhausting the soil any more than any other crop, I don't believe it; and certainly with the im-

proved machinery of the age, there is no difficulty in preparing the fibre for use.

Prof. NASH—Flax will grow of course, on stony land, but the soil must be good. The reason that flax culture ceased so far in this country is because cotton can be produced so much cheaper. The mere act of swinging occupied a man all day to dress sixteen pounds, and the culture of flax will never be extended in this country until we can prepare the fiber at a cheap rate—by some of the processes that have been tried—either by steam, or acid, or alkali. I have no doubt flax is more healthy than cotton for garments, and it may be produced to any extent desired, if it can be cheaply prepared for use. So far as my experience goes, all the operations connected with flax are laborious and generally unpopular with all farm-laborers. Pulling flax is very hard work.

Rev. Mr. WEAVER, of Fordham—What are we going to do with flax if we produce it in the great quantities proposed? Will it be accepted as a good substitute for cotton and wool? I have found that it will not answer for me to wear linen in such weather as this. Is it likely to be generally adopted by people, even if linen cloth can be made as cheaply as cotton?

Mr. LANCASTER, formerly of N. H.—With regard to flax seed, it depends upon what the article is to be used for. If for seed alone, three pecks per acre will do; if for seed and fiber, a bushel, or a bushel and a peck; and it should be sown as early as possible after the frost is out of the ground. It is a very exhausting and laborious crop. A hand will not pull over a quarter of an acre per day. When dry, the seed is beaten off, it is spread, and not turned till it is rotted sufficiently. A man in New Hampshire, where I used to work among flax, could dress from twenty-five to fifty pounds per day. And as to the use of linen, there is no end to its use; and there is no cloth applied to so many uses as that of flax. We can grow four hundred pounds per acre, and used to count it a good crop at fourteen cents per pound for the flax, and one dollar to one dollar and fifty cents per bushel for the seed, as an acre would produce twenty-five bushels.

The flax question is one of great importance to the country; because, if we can prepare the lint cheaply, all parts of the country can produce a better fiber than cotton, sufficient for the use of the inhabitants, at less than the average price of cotton, and the fabric will be more valuable, and its use more healthy.

HORSE DISEASE IN CALIFORNIA.—A fatal disease has made its appearance among the horses in California. Last year, David Spear, of Monterey, lost one hundred and fifty head. It attacked the horses at the latter end of the dry season, when grazing on bottom land. It first shows itself in the animals throwing out the head, with the body much drawn up, and the hind legs drawn forward—staggering about for several days, refusing food till it falls down, and writhes in pain till death occurs after two or three days. Post mortem examination fails to throw light on the cause.

WHAT SHALL I DO WITH MY PIG.

THE question that herds this item was addressed to us by a literary gentleman who had just come in possession of the carcass of a fat pig, weight about 200 lbs., more or less, which he professed to know as little what to do with as the man who won the elephant knew what to do with his prize. Whether our friend won his pig in a raffle, or came honestly by him by right of inheritance, we know not. We think he could not have purchased it, and the reason, we think, is, that he is a newspaper editor. But no matter; he had got the pig, and the question is—What shall he do with it? As a like accident may happen to some other gentleman, our pig-knowledge may be useful to some others in like distress. Therefore, we let our light shine.

The first operation with a dead pig is to take off the head, pretty well up to the shoulders, by cutting the flesh with a sharp knife, and the bone with an ax. Cut off the ears as close as possible; divide the jowls from the upper part of the head, on a line with the mouth, by knife and ax. These are excellent salted and smoked, or they may go into "head cheese." This is made of the upper part of the head, with the "souse," or else it goes into the oven for "baked pig's head," in which case two inches of the snout must be cut off for souse. The next cut is to sever the ribs close to the backbone along each side, and take out the backbone or roasting. Now cut the leaf-fat loose from the ribs forward, and seize it with a strong grip and pull it and the kidney out, and then, with a knife inserted under the ribs, cut them loose with as little meat as possible. Now cut off both hams, and then cut them apart, taking out the tail piece wedge shaped, and trim the hams to a handsome shape, with only a short leg on each. Now cut the shoulders off in the same way, taking out quite a chunk of the fat meat of the back between them. Then cut up the sides, if wanted for pickled pork, in sizes to suit; if intended for "side bacon," leave them whole in two pieces. If your pig is not large, and you want fresh roasts, you need not take out the backbone, but cut it with portions of the ribs and sides into suitable sized roasting-pieces. If your pig is very fat, and as lard is worth more than pork, trim the joints and sides closely, and put it up fine for lard. These with the leaf must be put in a kettle over a slow fire, so as not to burn, without water, and cooked till all the water is wholly evaporated, and the scraps thoroughly cooked. Such lard will keep sweet.

It will be most convenient for you to dry salt your bacon. First sprinkle a little saltpeter—4 oz. to 100 lbs. of meat—and then rub half a gill to a gill of molasses upon each joint, and let them lay a day or two; then rub them with fine, hot salt—3 lbs. to 100 lbs. of meat—and then lay them upon the floor or on a table as many days as a joint weighs pounds, rubbing them over once in the time. Salt the side-pork in the same way, and afterward pack it in brine as strong as salt will make it.

When the joints are ready to smoke, brush off all the loose salt, or rub it off with a wet cloth, but do not put them in water, and sprinkle them well with red pepper. Smoke them with any sweet wood, and be sure never to heat them nor to make

a smoke wet days. Let your smoke-house be open for the smoke to escape, and do not hurry the business, and you will have sweet bacon. It will take two or three weeks to smoke a ham of 16 lbs. weight. Never use rotten wood. After your joints are smoked to suit you, put each in a loose cotton bag, and hang up the joint by the string, not by the bag, in a cool, dry room, and your hams will keep for years.—*New York Tribune*.

NOTES FROM MAINE.

"PEAS AND POTATOES ON THE SAME LAND FOR HOGS."—EDS. GENESEE FARMER:—Under the above quotation, in the January number, page 18, you ask a question (asked you by "one of the best and most intelligent farmers") of the readers of the *Genesee Farmer*, to this effect: What do you think of planting early potatoes and peas to be fed to hogs upon the ground where grown—the hogs doing their own harvesting, cooking and milling, and fattening themselves, besides tilling and enriching the land?

This seems to be an important improvement, especially with those who grow pork largely; and, if this thing can be so done economically, it will be advantageous to many who can not raise pork to a profit only on a small scale; that is, hogs enough to consume the refuse materials which are seemingly only suitable for hogs,—which every farm devoted to mixed husbandry produces.

The editor of the *New England Farmer*, in speaking of making compost, sometime in 1861, says it is better to fork it over by hand than to have the hogs root it over, because man-labor is cheaper than hog-labor with him. His suggestion was copied into many of the agricultural papers without a dissenting voice, as far as seen, while several spoke of it favorably to their readers.

To fat hogs expeditiously and profitably, they must only "eat and sleep." Hence, to have to dig potatoes, to get their drink, besides gathering the peas, will be little if any short of work. Different localities will make some difference economically in this way of fattening hogs. But, unless there is some fattening property lost by letting the peas ripen and taking the potatoes out of the ground, it would be an expensive mode with us in Maine.

The succeeding crops after peas and corn are better than after potatoes almost invariably, and where corn and potatoes are grown side by side with equal amount of manure, the corn getting one the most hoeings, even the grass, after a crop of wheat, oats or rye has been taken off without any more manure being applied, will show just the bounds of the corn piece for years. As to turnips, they are not grown sufficiently extensive to practically know much about their exhausting tendencies, but potatoes are practically known and generally considered an exhausting crop with us.

Elm Tree Farm, Maine.

O. W. TRUE.

TO DRIVE AWAY RATS.—Some six or eight years since, my wife, in order, as she said, to sweeten the cellar, sprinkled a solution of copperas over the bottom; since which I have never observed any signs of rats in the cellar. Her custom is to use the solution two or three times during the summer, sprinkled on the cellar floor, and I am fully convinced that rats do not like it.—D., *Gates*.

WHAT IT COSTS TO SEND CORN FROM NEW YORK TO LIVERPOOL.

EDS. GENESEE FARMER:—Any information in regard to the charges consequent on the exportation of corn, may not be uninteresting to some of your readers.

On a recent shipment to Liverpool, England, these amounted to *thirty cents per bushel, of fifty-six pounds, after the corn was on board in the port of New York*, and comprised freight, primage, insurance, duty, town and dock dues, portage, landing and commission. As it was sold on arrival, there was neither cartage nor storage to include. The three first, and the last, of these items, may be more or less, according to circumstances. In this instance, the freight was twenty cents per bushel, and the primage five per cent. on the freight; the insurance, including the war risk, was one and three-quarters per cent. on the amount insured; and the commission and guarantee three per cent. on the gross proceeds of the sale—the usual charge, however, is four per cent.

In New York a bushel of corn is fifty-six pounds; in Liverpool it is sixty pounds. There is, moreover, a loss of about one per cent.

The owner has to allow interest at the rate of five per cent. per annum, on the charges, not including commission, from the time of landing to the time of sale; and three month's interest at the same rate, on the gross proceeds of the sale, less the commission, in consideration of prompt payment.

JOHN BRADFIELD.

SUGAR CANE AT THE WEST.

EDS. GENESEE FARMER:—*Sorgho sucre*, or Chinese sugar cane, the seeds of which were so extensively distributed several years ago by the Patent Office, has proven so fully successful that great preparations are making for its production the present year. In this county very many farmers made last year from fifty to five hundred gallons—frequently averaging from two hundred to two hundred and fifty gallons per acre. Much confidence is felt in its complete success, not only as a syrup-producing plant, but also in its ultimately producing sugar.

At Rockford, in Winnebago county, and at Earl, in La Salle county, large manufactories have been established which produced from the last year's crop, many thousand gallons of syrup. P. W. GATES, Esq., of Chicago, exhibited and operated, at the Illinois State Fair, and at our own and other county fairs, a small steam engine which ran the crushers, while the steam evaporated the juice instead of its being done over a fire.

A refinery has now been established in Chicago, which desiccates the syrup so perfectly that it is fully equal, for any purpose, to the best refined Cuba syrups. We hope to be able to supply a lively demand with prairie plantation syrup, next fall.

Amboy, Ill., Jan. 13th, 1862.

G.

GARGET IN COWS.—I. W. SANBORN, of Vermont, informs us that one of the most simple and effectual preventives and *cures* for garget in milch cows, is beans, ground and fed as provender. Try it.

THE POTATO DISEASE—EARLY DIGGING AGAIN.

In the January number of the *Farmer*, a correspondent, "D.," of Gates, says that the potato disease prevails to a considerable extent in his locality, and wishes to compare notes with others, as to the prevalence of the disease, and also as to the policy of early digging. I respond by saying that the rot is very bad in this vicinity. I raise several varieties, some of which, as the Carter, Mountain June, Lake Erie Red, or Western Red, have suffered severely, while the Purple Mercers, White Kidney, (early; a variety of Pink Eye, originated by myself,) and the Jenny Lind, or Multiplier, rotted but very little. I dug a part of my Lake Eries in September; they have not rotted nearly as bad as the same variety dug the latter part of October. The Carters were not dug until the last of October, and I have lost the seed. Some of my neighbors who have raised the Peach Blow and Davis Seedling, say that they have rotted but little, while other varieties on the same ground were badly affected. The tops of my Jenny Linds remained green until they were killed by the frost, (Oct. 27). It is a late variety. One of them weighed exactly four pounds. I hope others will respond to "D.'s" request.

W. H.

North Almond, N. Y. Jan. 15, 1862.

TIGHT BARNs.

EDS. FARMER:—In the January number of the *Farmer*, is a piece entitled "Tight Barns." With the sentiment of that piece I fully agree, yet I am afraid it may produce a mania among our tight barn farmers, common in this section of the country. Allow me to give you an illustration of our "tight barns!" You go into one of them these cold, frosty mornings, and you will see the cattle stand rounded up, with their sides covered with frost, and the manure behind them frozen solid; also a liberal coating on either flank, which serves instead of straw for bedding. This neglectful practice is altogether too common. Would it not be better to take a portion of the straw given to the cattle as food, and use it as bedding? Would it not be a saving of food? Every one knows—or ought to know, that cattle kept warm, eat less than those kept as above; even these "tight barn" farmers, let them but consider, and they will agree with me there. Then why not batten an extra board on your barns, around your cattle? It will pay well.

E. FOLSOM.

Harmony, Maine.

PREMIUM TURNIP CROPS IN CANADA.—Having noticed in the *Genesee Farmer* several accounts of premium turnip crops for 1861, I will add another to the number. Our county Agricultural Society having offered liberal premiums for the best one and two acres of turnips, I send you the names of the successful competitors, and the number of bushels grown per acre:

FOR THE BEST TWO ACRES.

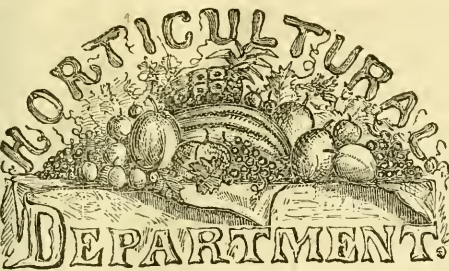
1st Prize, Robert Merriman	1,408 bushels per acre.
2nd " Arthur Pollard	1,170 " " "
3d " William Barber	1,010 " " "

FOR THE BEST ONE ACRE.

1st Prize, Thomas Penhale	1,056 bushels per acre.
2nd " I. N. Hunt	978 " " "
3d " James Casey	885 " " "

East Riding, Elgin Co., C. W.

LYMAN LEWIS.



TRANSACTIONS OF THE MASSACHUSETTS HORTICULTURAL SOCIETY.

We are indebted to EREN WIGHT, Esq., the able Secretary of the Massachusetts Horticultural Society, for a copy of their Transactions for 1861. As usual, it abounds in interesting and valuable information. We make a few extracts:

CULTIVATING THE STRAWBERRY IN HILLS.—This practice is not general, we believe, around Boston, but it is stated that Dr. LODGE has cultivated the strawberry for the past four years in hills, without removal, and with continuing good results. This fact will be of special interest to cultivators just entering upon this mode of culture. The yield was about four thousand quarts per acre for this, the fourth year—the plants indicating perfect health and vigor. This method is but an application of Dr. LODGE's theory of pruning, which is the removal of all superfluous wood, laterals or runners, forcing the plants to form fruit spurs, with the least possible amount of wood and no unnecessary foliage.

It will be seen from the Report of the Discussion at the recent meeting of the Fruit Growers' Society of Western New York, in this number of the *Farmer*, that Mr. KNOX, of Pittsburg, states that he raises strawberries in this way from the same plants for ten years in succession without renewal.

FAILURE OF THE FRUIT CROP THE PAST SEASON.—On the morning of February 8th, 1861, the thermometer marked 21° below zero—probably the greatest degree of cold ever experienced in the vicinity of Boston. The consequence was that, though the summer was favorable, the crop of fruit, on some of the most important varieties, proved almost a total failure. The trees, too, in many instances, were also severely injured. In many cases, this injury has been confined to the killing of the later growth—the more tender shoots at the ends of limbs, in others to the destruction of flower or leaf buds, while in still others it has extended to the whole tree, causing its death, or rendering it worthless or of little value. This injury was much more severe and complete in some varieties than in others, showing a difference of vigor and degrees of hardihood in different sorts of the same kind—a difference not sufficiently attended to when profit is the object of the cultivator; as, for example, in pears, the Bartlett and Beurre Bosc suffered greatly, the trees of both having been almost universally severely injured, and in many instances wholly killed; while on the contrary, the Marie Louise, Belle Lucrative, Urbaniste and Louise Bonne de Jersey, seemed to escape wholly unharmed; the two first

of these last-named having been, the past season, superior in quantity and quality to any season now remembered.

SHELTER FOR FRUIT TREES.—The Fruit Committee in their report well remark:

"One of the lessons taught by the unfortunate experience of the past year is plain and palpable; it is, that in a climate such as ours, fruit trees and vines, occasionally at least, if not always, require a certain amount of protection against its severity. This may be obtained by selecting a sheltered site for the garden or orchard; and where that cannot be done, by the erection of a high close fence around it. If any question arises as to the efficacy of this last method it needs but a visit to the garden of Mr. TUNOR, at Nahant, to dispel the doubt, where, protected only by a high paling, fruit trees of all varieties may be seen flourishing luxuriantly, while outside of such enclosure the hardiest trees cannot resist the influence of the fierce winds that blow over that peninsula. And there is no ostensible cause for the exemption from injury of the trees of Mr. BACON, of Roxbury, and Mr. VANDINE, of Cambridge, and that these bore full crops of fine pears in a year so unpropitious as the past, but the shelter they receive."

STRAWBERRIES.—Among the new varieties, *La Constante* is highly spoken of. In regard to the culture of strawberries the committee remark that in Belmont, where the strawberry is more extensively cultivated, perhaps, than anywhere else, the growers confine themselves mainly to a few established sorts, depending for their crops upon Hovey's Seedling, with the Jenny Lind, Boston Pine, or Brighton Pine, as a fertilizer; planting them in the proportion of about six of the former to one of the latter, and setting them in single rows about four feet apart, and taking but one crop from the same vines, have new beds every year. It is believed that this is the most economical method of cultivating the strawberry. The practice of so skillful cultivators as those of Belmont is surely entitled to great consideration.

CURRENTS.—*La Versailles* and Dana's Transparent currants are commended. The former has been cultivated for some years and is esteemed among the best. The latter is large, of fine flavor, and it is said, a great bearer. It is remarked that in an experience of forty years, the last season is the only one in which this fruit seemed to have met with severe injury. But the past year the blossom buds seemed to have been destroyed.

RASPBERRIES.—The Catawissa is recommended to those who wish to prolong the raspberry season. It was shown as late as October 18th.

BLACKBERRIES.—The canes of these, when grown luxuriantly, are apt to be winter-killed and need protection. They suffered severely the past season.

CHERRIES.—This crop was entirely destroyed. The trees seem to have been failing for some years, and will not soon recover from the effects of the past severe season.

PEARS.—Far below an average. There were, however, some very fine specimens shown. The Urbaniste, Marie Louise, Belle Lucrative, Beurre d'Anjon, Beurre Lange-lie, Glout Morceau, Josephine de Malines, with some others, have been peculiarly large, fine and beautiful. There was little or no second growth on the Pears the past year, that which, from its immature state is most apt to be injured. The extreme cold of the past winter killed, or seriously hurt, many of the trees.

FRUIT GROWERS' SOCIETY OF WESTERN N. Y.

THE Annual Meeting of this Society was held in the Court House, Rochester, N. Y., January 8-9.

The following subjects were discussed:

SUBJECT I.

Dwarf Apple Trees.—What is the best stock for dwarfing the Apple, and what are the comparative merits of Dwarf and Standard Apples?

P. BARRY was asked to open the discussion, and remarked that there was little new to be said on the subject. There were two kinds of stocks used for dwarfing the apple—the Paradise and the Doucain. Worked on the former, the trees are very small, and suitable only for garden culture. The trees bear very early, and the fruit is of extra size and quality. On the Doucain stock, the trees are larger—as large as a dwarf pear. They make fine pyramids, or half standards, and might be of advantage

W. P. TOWNSEND, of Lockport, spoke favorably of the Primate, Early Joe, Early Harvest, and Red Astrachan, and the Sweet Bough for baking.

Dr. BEADLE said in Canada the Sweet Bough was the most popular sweet apple, and the Red Astrachan excellent for cooking and eating.

H. E. HOOKER recommended Sweet Bough for baking, and the Early Harvest, Early Joe, Primate, and Red Astrachan for eating and cooking.

GEO. ELLWANGER.—The Summer Rose is one of the best summer apples. Had he but one variety, it should be the Summer Rose. The Early Joe is a delicious eating apple, but is very apt to be imperfect and spotted. The Early Harvest is good for the table. The Sweet Bough for baking, and the Red Astrachan for cooking.

W. B. SMITH, of Syracuse, recommended the Early Harvest, Red Astrachan and Sweet Bough for cooking, and the Primate and Summer Rose for the table.

P. BARRY considered all the summer apples that had been named excellent, and well worthy of general culture, except, perhaps, the Early Joe, which is often very spotted, and the tree a poor grower. The Early Strawberry is a beautiful, excellent apple, of a peculiar and delicious aroma, and the tree a good grower. An excellent market apple; the fruit sells at a high price as a summer apple. Would name it as one of our best summer varieties. It remains longer in perfection than almost any other summer apple, ripening gradually and remaining on the tree longer than most others. Tree an erect grower, with slender branches.

Dr. SYLVESTER, of Lyons, thought very highly of the Early Strawberry. The tree is a handsome and erect grower. Fruit ripens gradually for five weeks. For family use, this peculiarity is valuable, but objectionable for market, as it is less trouble to pick all the fruit of a variety at once. Would place it among the four best. Dr. S. could hardly confine himself to four varieties. He wanted the Early Harvest for all purposes, Sweet Bough for baking, Red Astrachan for cooking, and Early Strawberry, Summer Rose and Primate for table.

E. MOONY, of Lockport, thought the Primate the best early apple. Ripe nearly as early as the Early Harvest, and does not spit, while the Early Harvest is subject to it, and Mr. M. thought may have to be dis-

carded, for the difficulty is increasing, and varieties subject to it should be rejected. The Primate is entirely free, and also the Red Astrachan. The Sweet Bough is a good apple, and bears shipping well. Would like to retain the Early Joe, although it does spit. Some gentlemen present thought the Primate tree rather tender, and Mr. M. said, in reply to inquiries, that it is as hardy as a Greening, and very much like it in growth. It may be picked before it is ripe, and improves as much as a Virgalieu pear.

L. B. LANGWORTHY and H. E. HOOKER thought four summer varieties were not enough, and proposed that the number be increased to six. This was agreed to.

P. BARRY thought the Golden Sweet a very desirable summer sweet apple, though perhaps rather late to be called a summer apple. It is an immense bearer, the tree a rapid grower, and bears early; an excellent market apple, especially in New England.

E. MOONY agreed with the last speaker in his opinion of the Golden Sweet. It is an excellent baking apple, but not as good for the table as the Sweet Bough, and will not bear carriage as well. Most of the Sweet Boughs of Niagara county are purchased for the Boston market.

L. B. LANGWORTHY said Golden Sweet was the most persistent bearer he knew—equal to the Baldwin.

P. BARRY said a line had been handed him, requesting his opinion of the Jeffries apple—a beautiful, striped, very superior dessert apple from Pennsylvania. It is an excellent summer apple.

JAMES VICK was anxious this fine apple should be brought to the notice of the meeting. It is excellent and beautiful.

H. E. HOOKER had the Jeffries in bearing the last three



DWARF APPLE TREE ON THE PARADISE STOCK.

in the West and other places for orcharding. They do not fruit so early. Would plant them 12 feet apart. On the Paradise stock, they might be planted 4 to 6 feet apart.

Dr. BEADLE, of Canada, asked if an orchard could be planted, under any circumstances, with either of these stocks so as to make it profitable.

P. BARRY.—On the Paradise stock, the trees are short-lived. The trees would not last more than fifteen to twenty years at best—perhaps not more than half so long. On the Doucain stock, the trees are much longer-lived. Had seen them twenty years old. They do not come into bearing much earlier than on the free stock, say six years from the bud.

[We annex a cut of a dwarf apple tree worked on the Paradise stock. The drawing was made expressly for the *Genesee Farmer*, from a beautiful specimen growing near this city. It will give a better idea of a dwarf apple tree than the most elaborate description.]

SELECT LIST OF APPLES FOR FAMILY USE.

SUBJECT II.

What are the best twenty-four varieties of Apples for general use?

Which of the twenty-four are the four best Summer varieties: two for the table, one for baking, and one for cooking?

P. BARRY.—The Early Harvest is the most popular summer apple in America. It is grown in every State in the Union as far South as the apple is cultivated. Had seen it at Memphis, and further South, as good as at the North.

years. It is an excellent table apple, and the finest acquisition we have had in many years. Does not ripen till September.

Mr. HOAG, of Lockport, had received scions from Pennsylvania, which had fruited, and he considered the Jeffries a very superior dessert apple.

The President, H. T. BROOKS, thought the growing of apples for feeding pigs an important matter for farmers. Pork is cheap, and it is necessary that cheap food should be used in making it.

P. BARRY named the Golden Sweet as a good summer variety for this purpose.

Dr. BEADLE said a neighbor fed sweet apples to pigs in great quantities, first using the Golden Sweet, and later the Tolman Sweet.

L. B. LANGWORTHY thought they were too good to feed pigs. Let the pigs have the run of the orchard and pick up all the wormy, fallen fruit; but apples that are fit to sell are worth more than they would be made into pork.

H. N. LANGWORTHY said he would sum up his opinion of the Golden Sweet in a few words—it is good for feeding pigs, not very good to eat, good to bake, and good to sell before half ripe. Dealers will buy it, and it is considered pretty good before it hardly begins to ripen.

AUTUMN APPLES.

SUBJECT III.

Which of the twenty-four, are the best six fall varieties?

H. E. HOOKER considered the Munson Sweet a superb sweet apple, productive, and good either for baking or the table.

GEO. ELLWANGER said Munson Sweet is the finest autumn sweet apple we have, with a bright red cheek, which makes it attractive. Excellent for baking.

W. H. SMITH found the Munson sweet a very profitable apple. Tree hardy and productive, and the fruit excellent. The Fall Jenneting good, and the Colvert a handsome apple and an enormous bearer, always fair, and an excellent cooking apple. The Rambo and the St. Lawrence are fine for late fall.

P. BARRY said Jersey Sweet ranks among the best sweet apples of its season.

Dr. SYLVESTER had cultivated the Munson Sweet a few years and liked it. The Pound Sweet is the best autumn sweet apple. It is more juicy than any other sweet apple. For feeding there is nothing like it.

Mr. SMITH inquired if Jersey Sweet is generally fair. It is an excellent apple where it can be grown, but for the last few years it had grown spotted and gnarly with him.

Mr. BEADLE said Jersey Sweet was an excellent apple in Canada, the fruit fair, and the tree productive. Ripe in October. Succeeds in almost all soils.

Mr. FISH thought Jersey Sweet one of the very best of fall apples; very tender and rich.

Mr. MOODY said Jersey Sweet as known by him was unworthy of cultivation, knotty and worthless. If they happened to get a fair one it was very good.

H. N. LANGWORTHY agreed with Mr. MOODY. It is an unprofitable apple, knotty, and falls from the tree.

Mr. HOAG had seen the Jersey Sweet excellent in Niagara county, on clay soils.

Mr. ELLWANGER found the Jersey Sweet to be a fine apple, but very often small and spotted. Spoke well of Duchesse of Oldenburg, Gravenstein, and Pound Royal for table apples; and the Munson Sweet for baking.

Mr. HOOKER said the Pound Royal is of poor appearance, greenish-white, often specked. Twenty Ounce is the finest of all varieties in, its season (Nov. and Dec.) of the largest size, and one of the best market apples, excellent for cooking, hangs well on the tree, and is a good bearer.

Mr. MOODY believed that the Duchesse of Oldenburg was one of the best autumn apples, and a very early bearer, often bearing in four years from the graft, one of the tenderest table apples. Fall Pippin, after the Gravenstein, is the next best cooking apple.

Mr. FISH said it is generally admitted that the Fall Pippin is of good quality, but he could never get many of them.

Mr. HOLMES had not heard the Hawley mentioned, and would like to get the opinion of members as to its quality.

Dr. SYLVESTER said the Hawley is one of the best fall apples, but is not considered very productive.

Mr. BEADLE had the Hawley in cultivation some years, but of late it is not only water-cored, but water-soaked, and was about worthless. It stands in a rather low place in the orchard, and this may be the cause of the trouble.

Mr. HOAG found it the same at Lockport.

Mr. HERRINGTON had the same difficulty with it on high ground. No good specimens.

Mr. HOOKER agreed. He would name the Porter. It is good for the table; good for shipping; is very popular in Boston.

Mr. ELLWANGER wished to add the St. Lawrence. He agreed with Mr. HOOKER in regard to the Porter.

Mr. COREY, of Penfield, considered Maiden's Blush a very fine apple.

Mr. ANTHONY said Maiden's Blush is always fair, productive and excellent.

Mr. BARRY said it is remarkable to notice the changes in the character of apples. Only twelve years ago the Hawley was extremely popular, and it was an excellent apple. Now it is subject to the defect noticed by several gentlemen, and is about discarded.

Mr. HOOKER found the St. Lawrence a very perishable, unreliable fruit. The crop is generally poor and wormy.

Mr. BEADLE thought the St. Lawrence had got too far south. In Canada, the further north it is grown, the higher colored, the finer, and the more perfect the fruit. It is always large, fine, and the tree productive.*

Mr. LAY, of Greece, found it to ripen unevenly.

Mr. SMITH said this was the case in Syracuse.

BEST TWELVE WINTER APPLES.

SUBJECT IV.

The best twelve winter, to embrace two for stock, two for baking, two for cooking, and six for the table?

Mr. ELLWANGER thought the Fameuse the best early winter apple for the table.

Mr. HOOKER recommended for baking, the Tolman Sweet, and Ladies' Sweet—a very valuable fall sweet apple.

Mr. BARRY said for market he was prepared to recommend the Rhode Island Greening and Baldwin.

Mr. FISH recommended for late keepers the Roxbury Russet and Golden Russet.

Mr. BEADLE recommended the Pomme Grise as a fine late keeper, and asked information respecting the Pomme d'Or, a good apple, somewhat resembling the Pomme Grise. He would rather have one barrel of the Pomme Grise than two barrels of Roxbury Russets.

Mr. FISH said the Pomme d'Or is a small, excellent Russet apple. It sold last year at ten dollars per barrel in Canada.

H. N. LANGWORTHY said he first saw this apple on the ridge road, near this city, in the orchard of Mr. SHERMAN. Its fine flavor and aroma is delightful. It is the prince of Russets. It is more oblong than the Pomme Grise—sometimes quite oblong. The tree is upright in its growth, and a good bearer. For a long time he could not ascertain its name, but by searching the French pomological works became satisfied that it was the Pomme d'Or of the French, and it has been called by that name. It is quite distinct from the Pomme Grise.

Mr. BEADLE said Norton's Melon is exceedingly valuable in Canada.

Mr. SMITH called attention to Peck's Pleasant, as it had not been mentioned. It is a very valuable early winter apple, and a pretty good bearer. Had none this winter. All the winter apples they have in Syracuse this season are the Golden Russet and Northern Spy. These two are the hardest trees we have.

Mr. BARRY said the Golden Russet, as understood here, is the one with small specks on the bark. The American Golden Russet, so much grown in New Jersey and southward, will not do here. Our Golden Russet is not described in the books.

Mr. WRIGHT inquired of the value of Cooper's Market.

Mr. HOOKER said it is grown by some of his neighbors, and is a good bearer and keeps until April. It is a showy fruit, but not of first quality. The Yellow Bellflower is good, but sometimes specked.

Mr. SHARP, of Lockport, inquired why some one did not mention the Swaar.

*St. Catherines, C. W., the residence of Mr. B., is no further north than this city.—Eds.

Mr. BEADLE found it tender in Canada. It winter-kills badly.

Mr. SMITH said it has the same defect as the Fall Pippin—never bears a crop.

Mr. LAY said the Swaar had borne well with him.

Dr. SYLVESTER recommended Newtown Pippin, wherever it can be grown without specks.

Mr. ELLWANGER said the Jonathan is an excellent dessert apple, and highly colored. The Canada Reinette is also good.

Mr. CAREY considered the Bailey Sweet equal to any sweet apple we have through January and February.

Mr. HOAG said the Bailey Sweet is a good apple, but it will not keep.

The PRESIDENT said the Bailey Sweet, on the warm, sandy land about Moscow, is a late fall apple, but on heavy land, and in colder situations, it is a winter fruit.

Mr. BEADLE said the Yellow Bellflower was with him a shy bearer, and has a very large core. He thought little of the variety.

W. P. TOWNSEND, of Lockport, said the Yellow Bellflower needs severe pruning, and if the tree is in good condition the fruit is good.

Several gentlemen stated the Bellflower is tender about handling.

Mr. MOODY thought this a little too far north for the Yellow Bellflower, but with a little care it will succeed well. For early winter the Wagener is one of the best. He thought well of Peck's Pleasant.

Mr. BARRY said the Yellow Bellflower was really a Southern apple. In the North it is doubtless degenerating, though it had never done well here, except in favored localities, but in the South it is as fine as ever.

Mr. GLEN recommended the Belmont as an early winter apple, both for the table and cooking.

Mr. BARRY believed it to be a seedling of the Yellow Bellflower, and a good apple very popular in northern Ohio.

Mr. CUMMINGS recommended the Northern Spy as a late winter apple, exceedingly valuable for a northern climate. Bears well when it commences, but is not an early bearer.

Mr. HOOKER inquired about the Spitzenburg—an old favorite—valuable for cooking, a good keeper, and under favorable circumstances, an abundant bearer. Would like to hear what the members had to say on the last point.

Mr. MOODY said it was good in Niagara county.

Mr. BARRY said it is one of the most popular apples in our state, but requires high culture, so that the trees may be kept growing vigorously. It is useless to try to grow it in grass.

Mr. Townsend said that is the reason the Spitzenburg is losing its popularity. Most of the bearing trees are old and have been neglected.

Dr. SYLVESTER could recollect when the Spitzenburg was very popular with all who liked an acid apple. Most people like its high, spicy flavor, and it is not excelled for cooking. But the trees must be fed to get good fruit. This is the case with all high flavored fruit. Did not call it a first-rate bearer, but when trees are well cultivated it will give a fair crop. Had picked five barrels from one tree.

Mr. MOODY—Do you call that a large crop? CYRUS BEACH, of the town of Cambria, in Niagara county, had grown twenty barrels on a tree. Ten to fifteen barrels was not more than a good crop. They got ten barrels of Baldwins to a tree.

Mr. SMITH said it does poorly at Syracuse. They think it has had its day and must be abandoned.

L. B. LANOWORTHY said the Spitzenburg was a shy bearer. He named the Red Canada as one of the best apples in the world. In regard to the value of apples for stock, he thought there was but little difference. It there was more saccharine matter in sweet apples they would be best, but he had made cider from sweet and from sour apples, and could perceive no difference in the cider.

President BROOKS thought *very sour* apples were not good for stock.

BEST FORM FOR AN APPLE TREE.

SUBJECT V.

What is the best form of an apple tree, and which is the time for pruning?

Mr. SHARP, of Lockport, would head all fruit trees low. Sprouts coming out near the ground are more vigorous and stocky than those formed further up the main stem.

They show a disposition to ascend instead of running out horizontally, make a good spreading top, and can bear more weight without injury. Trees trained in this way are also less exposed to the winds. It was thought that this low pruning would not allow the use of the horse-hoe and cultivator among the trees, but it was not so. When trees are trained high the branches are slender and the fruit bends them down to the ground, but when trained low the branches are strong and upright and you could get among them with a team.

President BROOKS asked if shading the ground would be an objection.

Mr. SHARP thought that the ground would not be shaded any more than when the trees were trained high, for the reason that the branches were more upright.

J. J. THOMAS was opposed to pruning the heads of trees high. In many orchards trees might be seen some three stories high from successive grafting.

Mr. FISH agreed with Mr. SHARP. Branches pruned near the root are stronger than those formed six or seven feet from the ground.

Mr. HOOKER considered the question a difficult one. Trees grow naturally of all forms. The Northern Spy has an upright growth, Greening crooked and drooping, while the Baldwin makes a globular, handsome, round-headed tree. Cut out the young wood from a Tompkins County King, as is desirable for a Northern Spy, and soon there would be no bearing wood left. This variety requires shortening in, while the Northern Spy requires thinning out. It is well to study the habits of trees, for, do the best we can, they will have their peculiar shape.

Mr. HERENDEN asked if we could not give some general rules for pruning.

Mr. BARRY said there is a difference of opinion about the height heads should be formed in orchard trees. He believed in having the heads low. Many advantages result from this course. The sap has not to travel so far; branches near the ground are not exposed to so many accidents, are less exposed to the weather, and protect the trunks from effects of sun and freezing. All our orchard trees are found leaning to the east, the effect of our strong west winds. The higher the head is formed from the ground, of course, the more they are exposed. Low headed trees are more easily pruned, and the fruit is gathered with much less difficulty and danger. The advantages are numerous and obvious to every grower of fruits. Some think that the head should be formed so high that a horse with plow could work under the branches. This is not necessary. The principal feeding roots are at the extremities, and as far out as the ends of the limbs or further. Manure and culture are not needed under branches. Plowing injures the roots by tearing and breaking them. A slight forking under the tree is all that is required.

H. E. HOOKER asked if an orchard could be kept for a term of years without plowing.

Mr. BARRY thought it could. If shaded, weeds would not grow. A light forking could be done very cheaply. It is well to plow so long as the plow does not interfere with the roots. He would head down at planting to four or five feet for standard orchard trees. Upright growing varieties might be headed down a foot lower than the Greening and other spreading kinds.

Mr. MOODY said farmers could not afford to use the fork. Had found no evil from plowing. Commence plowing when the trees are young, and the roots will not come near the surface. Would form heads four or five feet from the ground. Some tender trees have the bark injured by the sun in winter. This is prevented by growing branches low.

Mr. BEADLE said the climate in which trees are grown may have a good deal to do in determining the form of a tree. Mr. MOODY spoke of the sun burning the trunks of trees. Had seen the same frequently in Canada, the bark injured for seven or eight feet up the trunk. Thought it the effect of sun followed by hard frosts. By keeping the head low the trunk is protected. Never saw any ill effects from heading trees low. In Canada they have severe south-west winds. Every tree leans. The main crop is blown off high trees. Mr. B. would not use a plow under or near the trees in an orchard. The roots like to come near the surface for light, and air, and dew. Mr. HOOKER said the advocates of low heads seemed determined to drive those in favor of high heads into a

alse position. Although he did not believe in forming heads as low as some, he was equally opposed to having heads as high as some have described, and as is often seen. But the heads should be formed so high as to admit of horse work under the trees—say five feet when planted. Farmers cannot use forks and spades in cultivating their orchards—they must depend upon horses. Any plowman knows enough not to let the plow rip up the roots.

J. J. THOMAS had made a good deal of observation in the length of roots. The radius of the roots is equal to the height of the tree. If the tree is twenty feet in height the roots will extend twenty feet from the trunk in every direction. Mr. T. inquired if any one had ever known injury to result from plowing an orchard? The tearing of the roots a little, he thought, not so injurious as neglecting to stir the soil. Apple roots, many of them, go down low, but peach roots lie near the surface.

Dr. SYLVESTER said it is necessary to shade the trunks of trees, and it is also necessary to keep the tree growing to obtain good fruit. To effect this, it is necessary to keep the ground well cultivated, and it is hard to do this if the head is formed very low.

Mr. SHARP is determined to head his trees low, and has a pair of small mules for working under them, and when the trees are too low for these, will try a pair of asses.

To get at the opinion of the Society, the members were requested to prepare a list of the varieties which they considered most desirable. There were — votes cast, with the following aggregate result:

BEST SIX SUMMER VARIETIES—TWO SWEET.

Red Astrachan	12	Summer Pearmain	2
Primate	10	Early Joe	3
Early Harvest	8	Lowell	1
Early Strawberry	8	Benoni	8
Keswick Codlin	2	Sweet Bough	12
Summer Rose	5	Golden Sweet	8

BEST SIX AUTUMN VARIETIES—TWO SWEET.

Colvert	2	Munson Sweet	7
Twenty Ounce	10	Fall Jenetting	1
Gravenstein	9	Twenty Ounce Pippin	1
Duchess of Oldenburgh	7	Pumpkin Sweet	1
Porter	7	Maiden's Blush	1
Jeffries	3	Fall Pippin	2
Pomme Royal	3	Sylvester	1
Beauty of Kent	2		

BEST TWELVE WINTER VARIETIES—TWO SWEET.

Rhode Island Greening	13	Smith's Cider	1
Tompkins Co. King	12	Norton's Melon	1
Northern Spy	12	Canada Reineette	2
Baldwin	12	Blue Pearmain	1
Spitzenburg	8	Rawle's Janet	6
Golden Russet	8	Tolman Sweet	14
Roxbury Russet	7	Seek-no-further	2
Peck's Pleasant	7	Green Sweet	3
Yellow Bellflower	5	Ladies' Sweet	5
Pomme Grise	4	Cooper's Market	2
Canada Red	5	Cranberry Pippin	1
Swaar	6	Ribston Pippin	1
Red Cheek Pippin	3	Bailey Sweet	3
Wagener	6	Jersey Sweet	3
Belmont	2	Pound Sweet	1
Fameuse	7	Hill Sweet	1
Rambo	5	Pomme d'Or	2
Vandevere	1	Jonathn	1
Minister	1	Mother	2

BEST TIME FOR PRUNING.

Mr. HUNTINGTON said that in his early days he grafted a great many thousand trees, and had to take off many large limbs. In many orchards large limbs had been taken off by the ax previously, and he always noticed that limbs removed in the winter or early in the spring healed badly, often causing rot; while those taken off when the leaves were out healed rapidly, forming a lip of bark around the wound, and apparently without injury to the tree.

Mr. ELLWANGER had found the latter part of winter the best time to prune. The wound then becomes calloused, and there is no bleeding; but later in the season, when the buds begin to swell, if limbs are removed, bleeding often results and the wood becomes injured and often rots. If the trees are pruned when in leaf, growth is arrested for the season.

Mr. FISH agreed with the previous speaker, and recommended pruning in the winter.

Mr. SHARP, the year before last, trimmed a pear orchard

early, and got a good growth. Last year a part was trimmed early and a part late, and that pruned late made but little growth during the summer.

H. N. LANGWORTHY had found that pruning pear trees when growing always checks and often stops growth altogether. If large limbs are taken off old trees about the first of April, bleeding ensues and the wood decays; but if done in April, the wood seasons before the sap moves, and remains sound.

Mr. HOOKER agreed with Mr. LANGWORTHY and Mr. ELLWANGER, and thought the best time for removing trees was the present, or about the middle of winter.

CULTURE OF STRAWBERRIES.

Mr. BARRY here announced that the Rev. J. KNOX, of Pittsburgh, was in attendance, and he moved that the Society request him to favor them with an address.

Mr. K. has a farm of some 200 acres devoted to the culture of fruit. He is well known throughout the United States as a most successful cultivator of strawberries, occupying about fifty acres with this fruit alone.

By a unanimous vote of the Society, Mr. K. was requested to favor the meeting with his experience.

Mr. KNOX then gave a very able and lucid statement of his method of cultivating strawberries. He thought a rather light loam—what might be termed a wheat soil—preferable to a sandy soil for the growth of strawberries. Any soil, however, that would produce wheat or corn would produce strawberries. It was not necessary to make the soil very rich. He had some parts of his plantation where strawberries were set out on land plowed in the ordinary way, about eight inches deep, and the plants succeeded well. He preferred, however, to subsoil some eighteen or twenty inches deep, breaking up the subsoil without bringing it to the surface. The plants on this thoroughly pulverized and subsoiled land produced crops for ten or twelve years in succession without replanting in any way! He cuts off the runners as fast as they are formed. Plants in rows thirty inches apart, and the plants ten inches apart in the rows, making twenty thousand plants to the acre. Prefers setting out early in the spring. When he commenced strawberry culture, Mr. K. plowed between the rows, but latterly has discarded all implements in his strawberry plantations, except the hoe. Weeds are taken out by hand. The less soil is disturbed after planting the better, as the whole ground is covered with a net-work of small, fibrous roots. Never allows the vines to bear the first year planted, but picks off all the fruit-stems and runners. Protects the plants in winter by wheat or rye straw, put on in November. Oat straw is not heavy enough, and blows off. Plants bear much better for this protection. It also serves for a mulch in summer, and keeps the fruit from being soiled by the ground. One-half the straw is wasted each year, and needs to be supplied every autumn. Two tons to the acre is about the right quantity of straw to commence with, but after that, one ton of new straw each season will answer.

Varieties that succeed in some soils and situations fail in others. The Hovey is good in Boston, and Mr. K. had seen it good in Cleveland, but with him it never succeeded, no matter how cultivated. Some varieties seem to run out after culture a number of years. Pistillate varieties seem to do better when impregnated with some staminate sorts, than with others. On this subject he is trying experiments. The strawberry season ought to be lengthened. It is usually about three weeks, but with proper selection of sorts may be extended to five weeks. The sorts Mr. K. liked best were the following:

Early—Baltimore Scarlet, Jenny Lind, Burr's New Pine.

Late—Trolllope's Victoria, Kitley's Goliath, Nimrod, Buist's Prize.

Medium—Brighton Pine, Boston Pine, McAvoy's Superior, Scott's Seedling, Moyameusing, Downer's Prolific, Fillmore, Golden Seeded, British Queen, Vicomtesse Hericart de Thury, Wilson's Albany, Triomphe de Gand.

For a general crop, Wilson's Albany and Triomphe de Gand are the most profitable. The latter is the strawberry of all strawberries, and possesses all the excellencies that can be desired—productive, beautiful, large, of fine quality, berries shipping well and the plants are hardy. It is not as productive as the Wilson, but an acre

will bring more money. Sent them to Cleveland, Chicago, Philadelphia and New York. Received orders from New York for more than his whole crop. If confined to one strawberry, he would plant the *Triomphe de Gand*. Although not quite as productive as the *Wilson*, he could say with safety that it produces more than three hundred bushels to the acre. For canning, the *Wilson* is preferred. The only manure used is well rotted stable manure. The same plant, if runners are kept off, will bear ten years. A good many crowns will start and cluster around the original plant, each bearing a fruit stem, and all producing a very large amount of fruit.

Mr. VICK expressed pleasure at the remarks of Mr. KNOX. They show that the very best culture is successful on a large scale. We are too apt to think that good culture must be confined to amateurs or garden culture exclusively, and is unsuited to the orchard and market garden. This is an error. That system which is most profitable in the garden will be generally found so in the orchard.

GRAPES.

SUBJECT VI.

What are the best six varieties of Grapes for family use, and which are the best two for vineyard purposes.

Mr. KNOX had found, among the new varieties which he had tried, three which gave entire satisfaction—Hartford Prolific, Delaware and Concord. In a vine for general culture, we need two things—freedom from disease, in vine and fruit, and early ripening. Hartford Prolific and Concord are free from disease in the vine, never mildew, and the fruit is free from any disease. The Delaware mildews somewhat. We want early ripening, so as to be out of the way of frost. The grapes of Kelley Island are very popular, because they are obtained fully ripe. The soil is calcareous, and the season long. Such soils can be obtained, and if we had grapes that would ripen early, we should have all the advantages of that favored locality. The Concord is a splendid grape, but he watched the ripening with fear and trembling as the season for frost approached. Hartford Prolific, it was stated, drops from the bunches, but it did not with him. His crop is sold readily at twenty-five cents a pound. Mr. K. would not advise planting very largely of this variety, as Concord displaces it as soon as ripe. The Concord will stand more hard usage than any other grape, and bears well. It is the most beautiful grape he had ever seen. It bears early, and vines the third year after planting average ten pounds each, which will sell at from sixteen to twenty cents per pound. Prunes by the renewal system, and plants the vines seven feet three inches one way by six feet the other, making one thousand plants to the acre. Trellis eight feet high. After the third year each Concord vine will yield twenty-five pounds of grapes.

Dr. FARLEY, of Union Springs, said Diana was a favorite grape with him. He thought, with Mr. KNOX, that the Concord would prove one of the best of American grapes. The Isabella has done well, and has been injured by frost only two years. They ripen uniformly. Mr. F. has a Catawba vineyard on a point of land running out into Cayuga lake, which is there two miles wide, and they get pretty nearly or quite ripe. The renewal is undoubtedly the correct system. The Delaware grape is excellent in quality, but he could never get a bunch to weigh over half a pound, which is too small. Has no mildew. Diana last year showed signs of dry rot, and its wood is not so hardy as that of Concord or Delaware.

H. N. LANGWORTHY is well pleased with Delaware, Diana, Concord, Union Village, and Rebecca, for the table; and for wine, Clinton and Delaware. Mr. L. thought well of Bright's renewal system of pruning.

Mr. THOMAS has measured specimens of Isabella grapes at Dr. FARLEY's place, seven-eighths of an inch in diameter.

Mr. JACOBS has bought grapes in all parts of Western New York for years, and Dr. FARLEY has the best he has ever purchased or seen.

Dr. FARLEY, in answer to inquiries, said his land is mostly a pretty heavy clay, though he has a variety of soils, some gravel, lying on limestone rock. First under-drained well, then trenched. Plowed three times and succeeded in getting it well broken up eighteen or twenty inches deep. Put on muck in a crude state. Some portions received no muck and only good common culture, and there the vines did pretty well. Trenched a portion

three feet deep with the spade, and gave a very heavy dressing of manure. The result was a very large growth of wood but little fruit. At first commenced planting vines twelve feet apart each way, then eight feet each way, but now eight by ten. Mr. F. had seen some beautiful looking grapes grown by ringing, but size was obtained at the expense of quality. His soil is naturally dry, such as would not generally be thought to require draining, but water runs from the tile nearly the whole year.

Mr. HOLMES thought the Catawba and Isabella stood first on the list of grapes. Ashes he found to hasten the ripening.

Mr. AVERY had good ripe Catawba grapes the 15th of September. Produced by having the vine on the south side of a house and well pruned. The roots were covered with leached ashes.

Dr. SYLVESTER considered Isabella, Concord, Hartford Prolific, Rebecca, Diana and Union Village, the best varieties for table; and the Oporto and Clinton for wine. The Rebecca does well with a warm exposure; the Hartford Prolific does not drop its berries after the vine obtains age, and the Diana Mr. S. thought one of our best grapes.

Mr. ELLWANGER said with him Diana does not ripen much earlier than Catawba. This year neither ripened well. The Union Village is a large grape but of poor quality and ripens too late. Could recommend the Catawba where it would ripen, and the Concord and Delaware. Mr. E. was not prepared to recommend other varieties at present.

Mr. MOODY was in the same fix as Mr. ELLWANGER, and was not prepared to recommend six varieties for general culture. The Delaware would make good wine and is a good grape for the table. He ripens the Diana earlier than Mr. ELLWANGER.

L. B. LANGWORTHY said he introduced the Clinton from the Hudson river, in Saratoga county, and gave it the name by which it is known. One winter the thermometer was thirty-three degrees below zero, and killed all the Isabella vines. A friend wrote him that he had a grape that endured that winter without injury, and he obtained cuttings and brought them to Rochester, and named it after Gov. CLINTON.

Mr. SMITH said the Northern Muscadine had this year been excellent.

Mr. BARRY said the Rebecca, when ripe, is one of the very highest flavored grapes. Unfortunately, the vine is rather tender, and suffers from the sun, and in some cases from the winter, but those who have a favorable situation should plant the Rebecca, and they would have a most delicious grape.

Mr. HOAG fruited thirty or forty varieties last season. Of these he found a few very desirable. Would name the Delaware, Diana, Concord, Hartford Prolific, To-Kalon and Perkins. The To-Kalon is perfectly hardy, a good bearer, and the fruit superior to the Isabella, and keeps well, but the clusters are somewhat broken. The vines were on the trellis last year, and did not suffer in the least. The Perkins is the hardiest of all grapes, ripens early, only a few days later than the Hartford Prolific. It keeps well and improves by keeping. A little foxy.

Mr. LAY was much pleased with Concord.

Mr. FISH thought Northern Muscadine a good grape. It does not drop from the vine. Let some remain last season until frost.

H. N. LANGWORTHY had five or six years experience with Northern Muscadine. The bunches are very small, and it had proved very unproductive with him.

At the conclusion of the discussion, it was suggested that a vote should be taken, which was ordered, with the following result:

Hartford Prolific.....	5	Oporto.....	1
Northern Muscadine.....	2	Perkins.....	1
Delaware.....	7	To-Kalon.....	2
Diana.....	6	Union Village.....	1
Isabella.....	6	Rebecca.....	2
Concord.....	7	Catawba.....	2
Clinton.....	1		

The following officers were elected for the ensuing year: President, HUGH T. BROOKS, of Wyoming; Vice Presidents, J. J. THOMAS, W. B. SMITH, and W. R. CORROCK; Secretary, C. P. BISSELL, of Rochester; Treasurer, W. P. TOWNSEND, Lockport. C. P. BISSELL was unanimously elected the first Life Member of the Society.

W MUCH CAN BE RAISED FROM A LITTLE PLOT OF GROUND.

THE GENESEE FARMER:—Some writer remarks "one ought engenders another." Hence it comes, in part, that the reading in your January No. the interesting article "What can be raised from a small piece of ground," has determined me to give my experience the past season on a plot, or rather two strips of ground, comparing in value with that you allude to, about the same as the widow's mite of the olden time in value with the rich man's princely offering.

Plot No. 1, lying on the North end of the lot, and bounded by a high fence, was some 20 feet long by $3\frac{1}{2}$ wide. On the East side the lot, connecting on the North end with No. 1, was about the same size and bounded by a two story barn. On the South side the main lot was, first, a brick shop; second, a huge pile of wood, while on the West side was the rear end of the house.

At first sight one would exclaim preposterous the idea of gardening in such a secluded place, where the light, and more than all, the warm genial rays of the sun, the natural source of life and light, could scarcely reach the ground unless at noon; why, it is nonsense—better to carry your soil up on the roof and grow your garden in boxes.

Having thrown the ground up well and deeply—no small job either, for it was terribly stony—I leveled it, and anxiously awaited the time when our cold snowy spring emerging from the lap of winter would resume its wonted action.

Meanwhile, a friend having a pile of sifted coal ashes that were a great eye-sore, thought, as the ground was cold, wet and heavy, it would be conferring a double blessing to throw up the beds in trenches, partially fill with ashes, and then level off again. Having noticed somewhere a statement that coal ashes were beneficial on such heavy soils by way of lightening them, I readily assented, and the ground was so small that when he had gone over to see the ashes still formed quite a pile, so he repeated the operation until Plot No. 2 was full one-half ashes, and I was thoroughly disgusted. Well, I planted the bed with beans and peas, thinking if they did anything it would be in vain talking of artificial manures after this, with such an abundant supply of ashes to be had for the drawing. A spell of cold rainy weather succeeded with frosts, ruining the beans, though the peas made out to live. Having replanted the beans, and set out some tomato plants, I planted four squash seeds, two on each end of Plot No. 1; next a row of cucumbers, finishing with a border of beets. In the middle of this Plot was a grape vine, some six years old, running upon the fence, and also the barn—drawing nourishment from one Plot while shading both. No manure save hand labor was applied to either Plot, except watering during the summer with the slops saved from the kitchen for that purpose.

And now for the results: Plot No. 2 furnished about one and a half bushels string beans, and nearly one bushel peas, both suffering from the severe application of ashes, and being shaded on all sides except overhead. Between the rows I also had a few nice heads lettuce, some radishes, &c., and late in the fall tomatoes.

Plot No. 1 furnished a large amount of cucumbers, some

of the vines of which fastening upon the grape formed a pleasing contrast of full grape bunches and pendant cucumbers. I also had a fine lot of summer beets, and from the four squash seeds—one dying, and one not bearing—I had nine squashes, averaging 45 lbs. each, two of the largest weighing 67 lbs. each, and the smallest 24 lbs. One of our celebrated melon growers visited the vines two or three times during the season and stated it was, under the circumstances, the greatest growth he had seen. The grape vine also gave an abundant crop.

Now, Mr. Editor, in your walks about town—you see I assume Editors don't ride—have you not observed tracts or lots of land which compared with your correspondent's or mine would be immense, lying waste and desolate, waiting only the hand of cultivation to cause them to bud and blossom like the rose, repaying the tiller not only in the value of his products, but that greater and nobler good the pleasure of watching and tending the growing vegetation, noting its varied changes day by day, from the seed to the mature fruit, and if as one quaint author remarks, "he who causes two blades of grass to grow where only one grew before, is the greatest benefactor of the race," what shall be said of those who not only improve their minds but develop their muscle, ranking among the producers as well as consumers of the earth by tilling even a "small piece of ground." w.

GRAFTING THE GRAPE VINE.

A CORRESPONDENT of the *Horticulturist* says: "My experience in grafting the vine for several years would furnish a chapter of failures. I think I grafted a few vines every season for about five years, and during the whole time succeeded in making but one grow and form a good vine; and this one only by disregarding the usual directions given by the professed experts. Instead of waiting for the formation of leaves, and discontinuance of the excessive flow of sap, I grafted this one early, before the flow commenced. Since that time I have grafted thousands of vines, with nearly as good success as attends any other kind of grafting. I have practiced saddle-grafting, whip-grafting, and several fancy methods, but have found the common cleft grafting, carefully performed, the most reliable and successful. For large, strong stocks, I hardly think tying necessary, though a covering of clay or grafting wax is undoubtedly beneficial. For smaller stocks, I use only paper covered with grafting wax on one side. I could not recommend copper wire in any case. I have also grafted on various stocks, with very little difference in result, using indiscriminately the wild frost grape of the woods, the Catawba, Isabella, Concord, and some others. I do not say grafting the vine cannot be successfully performed after the leaves have formed; but it is a fact that up to the present time, notwithstanding many trials, I have never succeeded in doing it."

FRUIT TREES IN HEDGES.—Pears and various varieties of fruits are grafted into the hedges, in many provinces in France—not that the proprietor anticipates enjoying the fruit. They call them God's part (*la part de Dieu*). In the quince hedges of the Prince of Desdogne, branches to bear fruit are allowed to grow and form little trees, bearing quite an amount of fruit, "which bouquets of trees," M. GAGNAIM assures the editor of the *Revue Horticole*, "hanging gracefully in the midst of the hedges, produce a beautiful effect and render the scene less arid, being at the same time elegant and productive."

CHAPTERS FROM MY CORRESPONDENCE.

Dr. E. S. COOPER, of Knox county, Ill., an orchardist of large experience, writes:

"Apples fit to eat after April first are 'rare birds' in Illinois, so far as I have seen. The Jansel or Jeniten is the very best at that season. The Tewksbury Blush is a hardy, healthy tree, but mine, some forty or fifty in number and four inches in diameter, have not yet borne. Hawley is hardy but very unproductive. Bourassa hardy; fruit resembling Pomme Grise. Chandler and Dutch Mignonne hardy but poor fruit; also Beauty of Kent, Alexander and Surprise.

Almost any tender sort, as Sweet Bough, Roxbury Russet, Jersey Sweet, become permanently useful trees by working them on the Yellow Bellflower, or any other hardy, free-grower, ten or twelve inches above the main forks. I have many trees so worked, perfectly hardy and productive, and I am satisfied that I could not have got them worth anything in any other way."

JAMES SMITH, a well known nurseryman of Des Moines, Iowa, some 150 miles west of the Mississippi river and about the latitude of the south end of Lake Michigan, writes:

"I design planting the Concord extensively—say fifty acres for wine making, though it is said it will only make a cordial; but I have no fears as to the sale or healthfulness of the article, and anticipate its 'cordial' reception by our American population. A certain wine grower of Missouri says it makes a first-rate wine that does not intoxicate—a part of which I put down to 'Buncombe.' But at any rate, *wine is to supercede 'sod corn,'* and the sooner it is demonstrated the better for humanity. I am for trying all the grapes that promise well for this climate, and will extend the cultivation of the best, be that what it may. I this year fruited the Delaware—fine of course, but I think that I speak within bounds when I say that a Concord vine of the same age and care would have produced one hundred fold more in weight, and, to the taste of most persons, about equal in flavor.

Yesterday I took a basket of apples—among them the 'Lady Apple,' so highly prized in New York city—to the Supreme Court room. Its excellence *there* could not be discovered, and the verdict was that apples of equal flavor could be found in any well cultivated seedling orchard. So much for fancy!

The Hartford Prolific I consider a valuable grape, though it has not proved perfectly hardy as the Concord has with me—although on moist river bottoms here the Concord kills down. But the Hartford Prolific is nearly as hardy, quite prolific, very good, and at least ten days earlier than the Concord. In quality it is at least equal, and the early family and market grape for me.

Northern Muscadine is pleasant, but has been greatly overrated in size and productiveness.

Diana is really fine, but the vine tender and mildews—fruit ripens up well here.

Garrigues I think not equal to Isabella; tender, and a more rampant grower.

Last fall, a gentleman visiting here brought samples of the North America and Franklin. The former is fine, but small in bunch and berry, and leaves a slightly unpleasant

sensation on the palate, which would cause most people to place it with the 'good' only.

The Franklin is like the Clinton—sour.

To-day, Dec. 16th, I have Concord grapes on my table. They keep well, but shrivel. They were left out to the pretty good freeze, which 'flattened' the taste, and keeping they appear to have lost still more of their elevating qualities. So I have come to the conclusion we must select a grape with a little acid for winter use. Will you keep an eye to this last point? I have many new sorts under cultivation, and hope to find something worthy.

Of new apples, the Jefferson County, of New York, promises well. The tree is hardy and bears young."
Bloomington, Ill. F. K. PHENIX

PRUNING THE PEACH.

EDS. GENESEE FARMER: I think the plan of pruning the peach, adopted by the leading fruit-growers of southern Illinois, would be interesting and instructive to your readers. It is as follows:

When the tree is transplanted at one year from the bud, cut it back to a *mere stump* about ten inches high without any branches whatever. After the young shoots have commenced growing finely, rub all off but two, which should be left on opposite sides, and all at about the same height as nearly as possible. This will give a *distaff* form. The after pruning consists in keeping the shoots and branches in the center of the top cut off, thereby exposing the fruit more fully to the sun's rays, giving a higher color and flavor. Once a year, during mild weather in winter, or early in spring, all the long branches are cut back from one-third to one-half of last year's growth.

This is called here "the French system of pruning the peach," and is considered by our best pomologists the best plan extant. We have some orchards here numbering from four thousand to six thousand trees pruned in this manner, none of them being more than five or six years old. The branches of many of them can be pressed down upon the ground without breaking.

Union Co., Illinois.

EGYPTIAN

"KING OF THE PUMPKINS."—In the *Genesee Farmer* last month we stated that at the last annual ceremony promenade the "King of the Pumpkins" through the streets of Paris, decorated with flags, etc., the pumpkin selected for the honor measured 10 ft., 4 in. in circumference, and weighed 242½ lbs. C. H. CHASE, of Elkhart county, Ind., writes us that he saw, a few days since, a pumpkin raised by a gentleman of that county which weighed 195 lbs. It was a tolerably, good-sized one, but not equal to one he saw six years ago, in Winona, Minnesota, which weighed 221½ lbs. The French pumpkin yet carries off the palm. Can't it be beaten?

ROME BEAUTY APPLE.—This a favorite apple at the west. It is somewhat deficient in flavor, but is very firm and handsome. It is said to have commanded \$5.50 per barrel in New Orleans, while Roxbury Russets brought only \$3. A correspondent of the *Ohio Farmer* states that its fault, if it has one, is its "constant overbearing."

Ladies' Department.

INDIAN CORN BREAD.

The editor of the *American Agriculturist* offered three prizes, of \$10, \$5, and \$2, for the three best specimens of corn bread. There were two hundred and nineteen competitors! It must have been rather a difficult matter for judges to decide on the respective merits, as they had to take into consideration the cheapness and little trouble making, as well as quality of the bread. The first, second and third prize loaves were made as follows:

FIRST PRIZE CORN BREAD.—Take 2 quarts of corn meal, about a pint of (thin) bread "sponge," and water enough to wet it. Mix in $\frac{1}{2}$ pint of wheat flour and 1 teaspoonful of salt. Let it rise, and then knead well and time. Bake $1\frac{1}{2}$ hours.

This loaf was of beautiful form, cut light, and was of quality when three or four days old. Except in color difference in taste, it resembled a wheat flour loaf.

SECOND PRIZE.—Mix 2 quarts of new corn meal with 3 ts of warm water. Add 1 tablespoonful of salt, 2 tablespoonfuls of sugar, and 1 large tablespoonful of hop salt. Let it stand in a warm place 5 hours to rise. Then $\frac{1}{2}$ pint (or $1\frac{1}{2}$ teacupfuls) of wheat flour and $\frac{1}{2}$ pint of warm water. Let it rise again $1\frac{1}{2}$ hours; then pour it into a pan well greased with sweet lard, and let it rise 5 minutes. Then bake in a moderately hot oven $1\frac{1}{2}$ hours. It is best when hot.

This was a beautiful, almost crustless loaf, of a pleasant sweetish taste, and good quality. The bottom part was a little heavy, as if not baked quite enough, or not raised sufficiently, but a commendable bread, and rather more eatable than the previous one.

THIRD PRIZE.—Take 2 quarts of white corn meal, 1 tablespoonful of lard, 1 pint of hot water. Mix the lard in first; stir it well, that it may get heated thoroughly, and $1\frac{1}{2}$ pint of cold water. When the mixture is cool enough, add 2 well-beaten eggs, and 2 tablespoonfuls of home-made yeast. Bake 1 hour in a moderately heated oven. If for breakfast, make over night.

This, owing to the whiteness of the meal, and the lightness of the texture, as well as the general appearance of the loaf, greatly resembled the ordinary loaf of wheaten bread on our tables, and is worthy of general adoption, where eggs are sufficiently plentiful.

The third prize loaf was of the best quality, and the first prize was the poorest. But as the latter was the cheapest, it received the prize. The third prize receipt appears to us excellent.

A prize of \$4 was also offered for the best and cheapest corn cake. This was awarded to a cake made as follows:

FIRST PRIZE CAKE.—Take 3 teacupfuls of corn meal, 1 teacupful of wheat flour, 2 tablespoonfuls of brown sugar, 2 teacupfuls of cream of tartar, and 1 teacupful of soda. Mix well together while dry. Add 1 teaspoonful of lard (or saleratus) dissolved in warm water. Mix the whole to a thin batter, and bake in a quick oven, $\frac{1}{2}$ hour. The same batter will bake quicker in patty pans, or on a griddle, like buckwheat cakes.

A discretionary premium of \$2 for the best corn meal cake of any kind, without regard to cost or trouble, was awarded to a cake made as follows:

BEST CORN MEAL CAKE OF ANY KIND.—Take eight eggs and their weight in powdered sugar; the weight of six eggs Indian meal, $\frac{1}{2}$ lb. butter and 1 nutmeg. Beat the whites and the yolks of the eggs separately, adding the whites last. Bake 1 hour.

The Committee also call attention to a cake or pudding suitable for breakfast, made as follows:

Take 2 cups corn meal, 1 cup wheat flour, 1 teaspoonful salt, 2 teaspoonfuls cream of tartar, 1 teaspoonful soda, 3 eggs, 3 tablespoonfuls sugar, $1\frac{1}{2}$ pints milk, and 1 tablespoonful butter. Rub meal, flour, salt soda and cream of tartar through a sieve, which will mix them thoroughly. Then beat the eggs and sugar together, adding to them the butter melted. Next add the milk, and last of all stir in the previously mixed meal, flour, salt, soda and cream of tartar. Bake immediately and rapidly (to secure the escaping gas). Twenty minutes will finish it in a brisk oven.

ORIGINAL DOMESTIC RECEIPTS.

Contributed to the Genesee Farmer.

TURTLE SOUP FROM BEANS.—Take 3 pints of black Spanish beans, put them in a pot with the proper quantity of water, boil them until thoroughly cooked, then dip the beans out of the pot and press them through a collander. Then return this flour of the beans thus pressed, into the pot in which they were boiled, tie up in a cotton cloth some thyme and let it boil in the mixture, add a little butter, and season with salt, pepper, parsley, sweet basil and sweet majorum. Have ready force-meat balls, 4 hard-boiled eggs, quartered, and add to the soup, together with a sliced lemon—and wine to your taste just upon serving the soup. This will approach so near in flavor to the real turtle soup that few would be able to distinguish the difference.

ELECTION CAKE.—4 pounds of flour, 2 pounds of sugar, 2 pounds butter, 1 quart of warmed milk, and a tumbler of home-made yeast. Stir the butter and sugar together, and after putting in the yeast put in half the mixture of butter and sugar, and rub all thoroughly into the flour, wetting it with the quart of milk. Set it at least six hours, then add the remainder of the butter and sugar, and raisins and mace, and let the whole stand over night. Then take out and put in the baking pans, let it stand a short time and bake in a slow oven. This is truly an economical cake when eggs are dear. The ladies will always find this a great favorite with gentlemen.

CUP-CAKE, THE NICEST KIND.—1 up of butter, 2 of sugar, 3 of flour, the whites of 8 eggs, 1 cup of sweet milk, 2 tea spoonfuls cream of tartar, 1 (small) of soda. The cream of tartar to be put in the flour, and soda in the milk. Stir in the milk and flour the last thing, alternately, and put in the oven immediately. For cocoa nut cake grate one cocoa nut and add to it—or a pound of blanched almonds, and extract of bitter almond and a glass of brandy, will make delicious almond cake.

A DELICATE KIND OF FRIED CAKE.—1 cup of pul. sugar, one of sweet milk, 2 eggs, 1 table spoonful butter, 1 of cream of tartar and 1 tea spoonful of soda. Rub your cream of tartar on the flour—soda in the milk. Have sufficient flour to make a spongy paste, and roll to the thickness of less than half an inch. Then fry them with great care—and they make a most delicious cake.

APPLE PUDDINGS.—To a quart of stewed and strained apples add a piece of butter as large as an egg, sweeten well, and add six eggs well beaten, nutmeg or lemon for flavor. Make a nice patty and cover three or four deep baking plates, and fill with the prepared apple. This makes a very delicious pie or pudding. It is best cold.

Miscellaneous.

THE DUTCHMAN'S HEN: OR FEMALE PERVERSITY.

"If she will, she will—you may depend on't."
And if she won't, she won't—and there's the end on't."

"Once with an honest Dutchman walking,
About his troubles he was talking—
The most of which seemed to arise
From friends' and wife's perversities.
When he took breath his pipe to fill,
I ventured to suggest, that will
Was oft the cause of human ill;
That life was full of self-denials,
And every man had his own trials.
'T is not the will,' he quick replied,
'But it's the won't by which I'm tried.
When people will, I'm always glad,
'T is only when they won't, I'm mad!
Contrary folks, like mine old hen,
Who laid a dozen eggs, and then,
Instead of sitting down to hatch,
Runs off into mine garden patch!
I goes and catches her and brings her,
And back on to her nest I flings her;
And then I snaps her on the head,
And tells her: 'Sit there, you old jade!
But ~~she~~ she won't, for all I say,
She's up again, and runs away.
Then I was mad, as mad as fire;
But once again I thought I'd try her.
So after her I soon makes chaso,
And brings her back to the old place.
And then I snaps her a great deal,
And does my best to make her feel
That she must do as she was bid;
But not a bit of it she did.
She was the most contrariest bird
Of which I ever saw or heard.
Before I'd turn my back again,
Was running off, that cursed hen.
Thinks I, I'm now a 'used-up' man:
I must adopt some other plan.
I'll fix her now, for if I don't,
My will is conquered by her won't!
So then I goes and gets some blocks,
And with them makes a little box;
And takes some straw, the very best,
And makes the nicest kind of nest.
Then in the nest the eggs I place,
And feel a smile upon my face
As I thinks, now at last I've got her,
When in the little box I've sot her;
For to this little box I did
Consider I must have a lid;
So that she could n't get away,
But in it, till she batched, must stay.
And then again, once more I chase her,
And catch, and in the box I place her.
Again I snaps her on the head,
Until I fear she might be dead;
And then, when I had made her sit down,
Immediately I claps the lid on.
And now, thinks I, I've got her fast,
She'll have to do her work at last.
No longer shall I stand the brunt
Of this old hen's confounded won't!
So I goes in and tells mine folks,
And then I takes mine pipe and smokes,
And walks about and feels so good
That 'would n't' yields at length to 'would.'
And as so oft I'd snapped the hen,
I take some 'schnapps' myself, and then
I thought I'd see how the old cretter
Was getting on where I had set her;
The lid, the box so nicely fits on,
I gently raised—dunder and blitzen!—
(Give me more schnapps and fill the cup!)
There she was sitting—standing up!"

—Knickerbocker Magazine.

AN UNFORTUNATE CULTIVATOR.—One little "garden patch" of ours, says a wag, has been very unprofitable this season, very. The snails ate up the cucumbers, the chickens ate up the snails, the neighbors' cats ate up the chickens, and we are now in search of something that will eat the cats. Can any of our agricultural friends aid us?

DOCTORS' FEES.

A CELEBRATED physician in London relates the following as an item of his experience: "One stormy night was awakened from his first nap by the ringing of office-bell. He put his head out of the window and made the usual inquiry, 'What's wanted?' 'Och, docther, be quick! Me old woman, Biddy, is tarin' bad,' answered a voice below, with an unmistakable brogue. 'Who you?' said the doctor. 'Shure I'm Dinney Sullivan honor, an' I live in Bow, an' ye must be quick.' The place indicated being at a considerable distance, the doctor demurred, and asked him to summon a nearer practitioner. Dinney urged, and finally, as an inducement, said, 'Docther, dear, if you'll only come, I'll give you pounds, kill or cure.' Tempted by the fee, the doctor assented, and after a disagreeable walk found Biddy beyond human aid. He prescribed for her as well as he could, and then left, and the next morning heard of her death. After a time the doctor sent his bill to Dinney who indignantly repudiated it, and was sued in consequence. When the trial came on, and the doctor stated his case, Dinney quietly asked the plaintiff if he had cured 'the old woman?' He answered in the negative, of course. 'Then, doctor,' he continued, in a hoarse tone, 'upon the virtue of your oath, did you *kill* her?' The doctor was thunderstruck, stammered, and finally answered once more in the negative. 'Thin, your honor said Dinney, 'the docther didn't keep his contract—nether killed nor cured Biddy, and he can't have money.' The Court non-suited the plaintiff, and the doctor acknowledged himself sold."

AMERICAN EDUCATION.—In Timothy Titecomb's new book, "Lessons in Life," we find the following: "We greatly need in this country is the inculcation of solid views of life. Boys and girls are bred to discontent. Everybody is after a high place, and nearly everybody fails to get one; and, failing, loses heart, temper, and content. The multitude dress beyond their means, and live beyond their necessities, to keep up a show of better what they are not. Farmers' daughters do not love to become farmers' wives, and even their fathers and mothers stimulate their ambition to exchange their station for one which stands higher in the world's estimation. Useful employments are held in contempt, and humble professions are everywhere making high employments contemptible. Our children need to be educated to fill, in Christ, humility, the subordinate offices of life which they must occupy, and taught to respect humble callings, and to beautify and glorify them by lives of contented and godly industry."

DOUBLING-UP A JUDGE.—OTTIWELL WOOD, a witness in a case at the assizes, on being sworn, was asked his name and gave it. The judge, puzzled with the unusual Christian name, which probably he had only imperfectly heard, requested the witness to repeat it, which was done with no better success; and the judge somewhat testily said, "Have the goodness to spell your name, sir." The witness responded as follows: "O double T, I double U, double L, double U, double O, D." This doubling up the judge completely overcame his lordship, and he gave up all efforts to spell the name in sheer despair.



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GREAT PREMIUMS! GREAT PREMIUMS!—On the last page of the *Farmer*, this month, will be found an extraordinary list of specific premiums to be paid to those who obtain subscribers to the present volume of the *Genesee Farmer*. These premiums are offered to everybody. There are no restrictions whatever. Every one who sends the name of subscriber, whether his own name or that of one of his neighbors or friends, whether at his own Post Office or elsewhere, will receive a premium, sent postage paid, by return mail. Read over the list, and then let each reader see what he can do for us.

JANUARY PREMIUMS.—Below will be found the names of the successful competitors for our January Cash Prizes. Our friends can draw on us at sight for the amount, or we will send the money by mail, or in any other way they may designate. It will be seen that our circulation is steadily increasing. Thus, in 1858 the First Prize was taken for a club of 107; in 1859 for 116; in 1860 for 166; in 1861 for 211, and in 1862 for 319! Last year, the whole number sent in by the fourteen successful competitors was 1347; this year it is 1504. These results are certainly most gratifying. Notwithstanding the disturbance caused by the war, our friends have stood nobly by us, and the prospects of the *Genesee Farmer* were never brighter than at this moment. It has a strong hold on the affections of the thousands of intelligent farmers who have perused its pages for the last thirty years, and who by exerting their influence to extend its circulation among their friends, as well as communicating their experience through its pages, have done much towards placing it in the front rank of American Agricultural journals. We rely with confidence on such long tried friends, and can promise them that nothing shall be wanting on our part to render the *Genesee Farmer* more and more worthy of their good will and patronage:

1. Joseph B. Bowman, Blair, C. W., \$50 for 319 subs.
2. Thomas Atkinson, Ailsacraig, C. W., 30 " 170 "
3. Charles Howard, Hamilton, C. W., 20 " 151 "
4. Henry White, Charing Cross, C. W., 15 " 136 "
5. A. Overholt, Rainham Centre, C. W., 10 " 103 "
6. John McAskin, Prescott, C. W., 9 " 102 "
7. G. Patterson, Crowland, C. W., 8 " 76 "
8. L. B. Brainard, Waupaca, Wis., 7 " 74 "
9. John Dorr, Scottsville, N. Y., 6 " 70 "
10. R. W. Sawtell, Woodstock, C. W., 5 " 67 "
11. I. W. Briggs, Macedon, N. Y., 4 " 66 "
12. W. McNair, King, C. W., 3 " 64 "
13. John Haskell, Clarkson, 2 " 55 "
14. J. S. Shattuck, Aurora, Ind., 1 " 51 "

MONTHLY VS. WEEKLY AGRICULTURAL PAPERS.—The *Michigan Farmer*, which has for a few years past been published as a weekly, is again changed to a semi-monthly. The publisher says: "It may not be amiss to state that when the paper was a monthly it had *three times* as large a circulation—and probably paid *five times* as well—as when we recently purchased it. Making it a weekly proved almost its ruin."

THE RURAL ANNUAL AND HORTICULTURAL DIRECTORY FOR 1862.—This number of the *RURAL ANNUAL* is highly commended by the Press. It is conceded to be the best number yet issued. It will be sent prepaid by return mail, to any address, on receipt of 25 cents.

If any of our agents and friends who are entitled to the *RURAL ANNUAL* have failed to receive it, they will oblige us by notifying us of the fact, and it will be cheerfully sent. Or if any errors of any kind have occurred in the hurry of mailing at this busy season, they will be immediately corrected.

CLUB THE FARMER AND RURAL ANNUAL TOGETHER.—We still send the *Rural Annual and Horticultural Directory* together with the *Genesee Farmer*, in clubs of eight and upward, for 50 cents the two!

NOTES ON THE WEATHER FROM DECEMBER 15TH TO THE MIDDLE OF JANUARY, 1862.—The mean heat of the first half of December, 1861, was 7.2° above the average for 24 years, or was 37.7°. The mean of the last half was 28.8°, or 3.5° above the average. Hence, the mean heat of December was 33.8°, or 5.2° above the mean for 24 years. The lowest temperature of the last half was 11°, on the 25th, and the highest was 54°, on the 19th. The great body of wind has been from the west, or within 10° or 15° on either side of west. Much has been cloudy; only two or three days chiefly clear. The canal was frozen the second time on the 21st, and sleighing began on the 24th, after rain, and snow, and hail, and wind, and on Christmas, a cold and bright day, there was good sleighing, on an inch or two of snow and frozen rain, all of which melted away in the afternoon and evening of the 26th, followed by high wind on the 27th. Water of the month, only 1.33 inches. Cisterns begin to be too low, and some are empty. The barometer made rapid changes but was not very high nor very low. Its mean was about 29.5 inches.

The following are some results for the year: From college observations the mean heat of the year is 47.16°; for thirty years ending with 1861, 47.05°. Other observations give for the mean of the year here 46.9°. We may take 47° as the average, very nearly. The water, rain and snow, is for the year 34.80 inches and the average for 25 years is considerably less, viz.: 32.09 inches. The year has been characterized by high health, and abundant agricultural productions. The lowest temperature was 11° below zero, February 8th, and the lowest mean was then, 1.3° below. The highest heat was 92°, August 4th, but the hottest day was 82.3°, on July 8th.

The bright comet that burnt out in full splendor on the evening of July 2d, towards the northwest, was magnificent. It had passed its perihelion some days before, and, of course, was diminishing in brightness. It was followed with telescopes into December, and was holding on its southern course.

1862—JANUARY.—The first day was warm and cloudy, the surface wind south, the clouds from southwest; snow melted; temperature at 12 noon, 50°; before noon the wind began to be strong, shower of rain at 1½ p. m., ending in hail and high wind; snow-squall at 2 to 2½ with a gale, and temperature 40°; sun shone out, and at 3 p. m. more snow and higher wind, and at 3½ the thermometer stood at 33°. Violent gale and squalls through the night, temperature at 9 p. m., 25°, and the wind from the west, sweeping the storm along towards the Atlantic. The cold increased daily to the 5th, when the lowest was one degree. Even at Boston the temperature was 5° at 7 a. m., and 14° at noon, and only 13° at 9 p. m. From the 5th the cold decreased to the 9th, from which the weather was moderate to the 12th, and the thermometer fell to 6° on the 14th, giving us a cold day. The snow and rain of the 12th, from the south-west, with some hail and change to cold, gave us good sleighing on the 14th. The sleighing before had been very poor, and the snow soon wore out in our streets. On the 15th the snow fell very early from the south-east, two inches, perhaps, with hail at 5 a. m., and on to 11, more or less, when the snow melted some, sleighing good, and with the cold snow-squall in the eve-

ning, and temperature 30°, and at 9 p. m., west wind, better sleighing is indicated.

The mean heat of this half of January is 29.9°, or 3.5° below the average for 25 years, and the same as mean for this half last year. On the last four days barometer has shown a very uneasy state of the atmosphere: on the 12th, 28.87 inches; on the 13th, 29.88; the 14th, 30.03, and on the 15th, 29.08, at the same hour 2 p. m., on each of the days.

The weather has been favorable for business. The sale of pork, beef, and poultry, not to speak of cereals, market, indicates the farmers' activity, and, though prices are low, the current of money is very obvious, very gratifying.

MORE GOOD PIGS.—The Rev. G. A. ANDERSON, missionary to the Mohawks, Bay Quinte, C. W., writes us, in reference to our notice of Mr. Ives' Earl of Sifton pigs in last number of the *Genesee Farmer*, that he had the opportunity to weigh a pair of his pigs, a cross between Berkshire and Yorkshire, that were eight weeks old, they weighed, male 66 lbs., female 62 lbs.

At the same age Mr. Ives' Earl of Sifton weighed male 65 lbs. and female 55 lbs.

The reason we mentioned Mr. Ives' pigs was merely to show how rapidly they increased in weight.

Mr. ANDERSON mentions that he killed a pig of the same cross nine months old that weighed, when dressed, 340 lbs.

CIDER FOR DYEING PURPOSES—A HOAX.—The report that the Calico Manufacturers of Manchester were using Cider to make fast colors for their printed cottons, turned out to be a hoax. The manufacturers deny using it. It is a fact that large quantities of cider have been purchased in Devonshire, and other cider districts of England at greatly enhanced prices, the purchasers stating that they bought it for use in Manchester. This is true, but it appears that it is used for making *Champaigne*!

GOOD PIGS.—Mr. JOSHUA CALLOWAY, Jr., of Stanley, W., writes us, that seeing the statement of the weight of Middlesex pigs in the *Genesee Farmer* for October, he induced to weigh seven of his thorough-bred "improved Lancashires." They were ten weeks old, and weighed the aggregate 517 lbs, or within a lb. of 74 lbs. each. This, he truly observes, beats the Middlesex pigs mentioned in the *Farmer*. It should be stated, however, the Middlesex are a *small* breed of pigs.

TWO EGGS IN ONE DAY.—In the January number of the *Genesee Farmer*, Mr. C. N. BEMENT says: "Some hens lay one egg in three days; some every other day; others every day, and we have heard of one that laid two eggs one day." Mr. JAMES COX, of Wheatland, N. Y., informs us that he had a hen that laid two eggs in one day, early in the morning, and the other towards evening. She did not lay the next day.

THE RURAL ANNUAL AND HORTICULTURAL DIRECTOR.—BENJ. F. BARTOLET, of Chester Co., Pa., writes:—"In the present year's *Rural Annual*. The former six numbers of the *Rural Annual* I had a year ago bound in a Book, and a nice little volume it is, containing everything a farmer wants in a practical, concise form. I would spare it for a pretty price."

AND THE GENESSEE FARMER.—I. W. SANBORN, of Vermont, writes: "A 'happy New-Year' to you, and abundant success in your noble work. I have just sent away the last volume of the *Genessee Farmer* to be bound. The binding of the monthly being purely agricultural and reliable, it is eminently worthy a convenient form for preparation and reference. Each volume will make a book nearly four hundred octavo pages, worth to every farmer double the subscription price and cost of binding. Every subscriber should fail to get the *Genessee Farmer* bound, and give it a place in his library for ready reference."

P. T. CLARK, of Vestal, N. Y., writes: "I have taken much pleasure in perusing the pages of your most excellent paper. I look upon it as the most reliable and practical journal I have seen—in fact, the cheapest and the best."

Inquiries and Answers.

BEANS VS. CORN FOR SHEEP.—CULTURE OF BEANS.—Please send me through the columns of your highly interesting and much prized paper, to inquire respecting the relative value of cull beans to corn for feeding purposes. They are, of course to be fed to sheep, but their value and way of feeding, whether ground or not, mixed or otherwise, is a question.

I would also like some information as to the most economical method of raising beans, planting time, description of seed, etc. The seed it requires and the work of planting, &c., are great obstacles in the way of raising them for a profit, even at the present high prices. The piece of land planting with beans is a young orchard of two years with since transplanting, and is a rich and pretty dry one.

We have taken your paper for two years, and all we have to regret is that we did not subscribe for it before. We expect to be without it hereafter, that is, as long as it is published.—B. F. TABER, *Cayuga Co., N. Y.*

We think there is not much difference in the nutritive value of beans and corn—but the beans make much the best manure. We should prefer to grind them and mix with half beans and half corn meal. We shall be glad to hear from some of our experienced correspondents on this question, and also on the culture of beans.

BOOTS IN HORSES.—I had a fine seven year old horse last year that I had raised from a colt. He was always a healthy horse and in good condition, and had never been very sick. He was kept at work steady all the time. I let him away one morning to work and he appeared in excellent spirits. He did his work until night as well as usual. About seven o'clock in the evening he was taken sick, and by seven o'clock the next day he was dead, and when I opened him, half an hour after, I found his stomach distended and so eaten away by the bots that you could compare it to nothing but a cobweb. When the food was taken out of the stomach it would not bear its own weight. The mystery is how did the horse look well, and eat his food and do his work in such a state? Some veterinary surgeons say that the bots never cut through a horse's stomach while alive. Had the bots time to make this havoc in half an hour after he was dead? Will you please throw some light on this subject, and confer a favor on the owners of horses?—R. TAYLOR, *Nile, C. W.*

OSAGE ORANGE HEDGES.—The Osage Orange Hedge I planted and trained according to the directions contained in your *Rural Annual and Horticultural Directory* for 1877, is a perfect model of a hedge. In summer a perfect duty, so close as to exclude the air from passing through. I clip it three times a year. Last fall, after the leaves had fallen off, I observed some spots where the barks were black and white mouldy spots. The wood and bark on cut appeared quite healthy and sound, and may not be hurt, but I fear the consequences, and if any thing is known in regard to the disease, and whether it may or

will prove injurious in future time, would be gratefully received through the medium of the *Genessee Farmer*.—BENJ. P. BARTOLET, *Chester Co., Pa.*

STRETCHES IN SHEEP.—Being troubled considerably with stretches in Sheep, I wish some of your correspondents would give a remedy in the *Farmer*.—GEORGE K. EDGERTON, *Onondaga Co., N. Y.*

FEATHERS FOR BEDS.—Will some of your experienced correspondents tell us how to prepare feathers for beds?—A LADY READER.

MUCK.—(JOHN HENSHAW.) Muck varies materially in its composition and value, according to its origin. According to the analyses of Prof. S. W. JOHNSON, the amount of potential ammonia in the various deposits of dry muck and peat which he has examined varies from 0.58 to 4.06 per cent. In other words some kinds of muck contain seven times as much ammonia as others. For the purpose of comparison we may state that ordinary barn yard manure contains only about 0.5 per cent. of actual and potential ammonia. It will be seen from this that dry muck of the poorest description contains as much ammonia as barn yard manure, while the best deposits contain seven times as much. Dried muck, too, contains five times as much organic matter as well rotted barn yard manure.

COTTON IN SOUTHERN ILLINOIS.—(R. THOMAS.) We know very little about the culture of cotton, or the probabilities of its succeeding in Southern Illinois. Last summer we were in that section, as far south as Cairo, and saw a sample of cotton that was grown there. We learned, too, that formerly cotton was raised in that portion of the State. It will be necessary to get the right kind of seed. That from cotton raised last season in Southern Illinois or the Southwestern States will be the best. This is a *green seed*. The Government has sent an agent to Beaufort to obtain seed, but it is believed that such seed will not answer in the Southwest. It is a *black seed*, while the seed that is needed is of a green color.

PIGS.—(M. A.) As a general rule, it is not best to keep a breeding sow over three years. At this age she cannot easily be fattened. She should not be placed with the boar before she is ten months old. This is also true of the boar. If used earlier, it will impair the generative powers of both: the sow becomes worn and feeble from breeding, and produces unhealthy litters; the boar is stunted in growth and speedily shows signs of age. The period of gestation is about sixteen weeks. You may get five litters in two years, but it is too much. Better let the sow have a reasonable time for rest. For the large breeds ten is a good average litter, and twelve for the small breeds.

WARTS ON CATTLE.—(THOMAS EMBRY.) A thick paste made of potash, moistened with water and bound upon the wart, is said to prove effectual. The potash should not be allowed to remain too long, as it is very caustic—say half an hour, when it should be removed and the place washed with vinegar to neutralize the potash.

MOSS ON MEADOWS.—(A Subscriber.) Harrow the meadow in both directions, so as to tear up as much of the moss as you can, and then top-dress it with well rotted manure or ashes and plaster, or with 200 lbs. of guano.

MANURE IN SHEDS.—(LEVI LOBO.) We have had no experience in keeping manure under sheds, and can not say whether the liquid from the animals will keep it moist enough. It depends a good deal on how much straw you use. We have seen the manure kept under sheds in New England, where little or no straw was used, and it was if anything too wet, and muck was used as an absorbent. We should be glad to hear from some of our correspondents on this subject; and whether the manure will be sufficiently rotted for use in spring.

MOLES.—(T. COOK.) We know of no better way of destroying them than by the use of the old fashioned mole-traps. If any of our readers do, we shall be glad to hear from them.

OLD WALL PAPER.—(AN ECONOMIST.) It is said that old wall paper is much improved by rubbing it with a flannel cloth dipped in corn meal.

"WHAT IS THE BEST VARIETY OF ONION?"—(EZRA TOMPKINS.) We know of no better variety than the Strasburg, when genuine. You can get the seed of JAMES VICK, of this city.

CHINESE HOGS.—(JOSEPH KITELY.) We do not know where you can obtain thorough-bred Chinese hogs.

THE FARMERS' HIGH SCHOOL OF PENNSYLVANIA.—A recent letter from Dr. EVAN PUGH, President of the Farmers' High School of Pennsylvania, informs us that this institution is now fairly under way, and the prospects are highly encouraging. There is no man in this country better qualified to take charge of such an institution than Dr. PUGH. A Pennsylvania farmer's son by birth, with an innate love for agriculture, he early turned his attention to the science of agricultural chemistry, and studied for some years in the best laboratories of Europe. He was afterwards engaged in making some scientific investigations in connection with Mr. LAWES on his celebrated experimental farm, at Rothamstead, England. He is a man of untiring energy, and the important institution over which he has been called to preside in his native State, can not fail to be of incalculable benefit to the future agricultural interests of the country. There are now accommodations for three hundred students. Charges \$100 per annum. Catalogues can be obtained by addressing Dr. EVAN PUGH, Farm School, Pa.

SEVERAL inquiries, communications, advertisements, etc., have been crowded out of this number. They shall appear in our next if possible.

Literary Notices.

LESSONS IN LIFE. A series of Familiar Essays. By TIMOTHY TIMOTHY. New York: C. SCHUBNER. 1861.

These Essays have been lauded most extravagantly. They have been placed on a level with those of BACON and MACAULAY. They are popular with certain readers, and that is the best we can say of them.

THE CHEMICAL HISTORY OF A CANDLE. By MICHAEL FARADAY, D. C. L.; F. R. S. New York: HARPER & BROS.

This is one of the most instructive and interesting little works on the chemistry of combustion and kindred subjects we have ever read. It consists of six Lectures, delivered by Prof. FARADAY before a juvenile auditory, at the Royal Institute of Great Britain, during the Christmas Holidays of 1860-61. We would

commend it to all our young readers who wish to get a correct knowledge of the chemical changes which take place during combustion.

LIFE AND ADVENTURES IN THE SOUTH PACIFIC, a Roaming Priest. New York: LARPER & BROS. 1861.

This is an interesting narrative, compiled from the log-book of two young men, who were led to engage in the whale-fishing and who spent five years in that employment.

CHAMBERS' ENCYCLOPEDIA; A Dictionary of Useful Knowledge for the People. J. B. LIPPINCOTT & Co., Philadelphia, Pa. Published in parts. Price 15 cents each.

This is the best work of the kind ever published. We every reader of the *Genesee Farmer* had access to it at all times. The first and second volumes, comprising over 500 pages each, are now complete. Price \$3.00 per volume. The work will comprise six or seven volumes when completed.

TUCKER'S ANNUAL REGISTER OF RURAL AFFAIRS FOR 1862. This admirable little work, published by LUTHER TUCKER & SONS of the *Country Gentleman*, Albany, N. Y., is filled as usual with a great amount of reliable information of great value to every one interested in rural affairs. Price 25 cents.

GODY'S LADY'S BOOK.—This popular Magazine shows no abatement in vigor, interest and usefulness. It is a great favorite with the ladies—and doubtless deserves to be. Its tashion plates unequalled and its steel engravings excellent. It contains large amount of valuable information, specially interesting to ladies. It is sent to any address for \$3.00 per annum. Address L. A. GODEY, Philadelphia, Pa.

THE FOUR BRITISH REVIEWS AND BLACKWOOD MAGAZINE. LEONARD SCOTT & Co., of New York, publish reprints of the able periodicals, at greatly reduced rates, as compared with price in England. The four Reviews and Blackwood are sent to any address for \$10. The price in England is \$35.

ARTHUR'S HOME MAGAZINE.—We have frequently alluded to this interesting family Magazine, published by T. S. ARTHUR & Co., Philadelphia, Pa. Price, \$2.00 per annum.

THE CONTINENTAL MONTHLY.—Is the title of a new magazine published in Boston. Price, \$3.00 per annum.

THE ATLANTIC MONTHLY.—Published by TICKNOR & FIELDS, Boston, Mass., is undoubtedly the ablest literary magazine published in America. Price, \$3.00 per annum.

Special Notices.

COE'S SUPERPHOSPHATE OF LIME.—The following letter from HON. MARSHALL P. WILDER, one of the most eminent agriculturists in New England, gives a very gratifying account of some experiments with Coe's Superphosphate of Lime:—

DORCHESTER, Nov. 20, 1861.

DEAR SIR:—I take pleasure in enclosing, for your examination, some facts in regard to the comparative value of Superphosphate of Lime, purchased of you last Spring.

EXPERIMENTS ON OLD MOWING LAND.

This land was divided into three equal lots, of one-fourth an acre each, and dressed as follows:

No. 1, with one-half cord manure, valued at...	Hay Produced
No. 2, with 100 lbs. Guano, " " "	\$3.00....864
No. 3, with 100 lbs. Coe's Superphosphate of Lime, valued at.....	\$3.00....750
	\$2.50....948

EXPERIMENTS WITH CARROTS.

This land was old sward land, turned over last Fall, and was divided into three equal lots of one-eighth of an acre each.

No. 1, with 14 cords manure, valued at.....	\$8.00....75 bu
No. 2, with 50 lbs. Guano, " " "	\$1.50....60 bu
No. 3, with 50 lbs. Coe's Superphosphate of Lime, valued at.....	\$1.25....90 bu

EXPERIMENTS ON TWO ACRES OF OLD MEADOW LAND.

This land had probably never been ploughed before. In the month of August last, the brush, brakes, hedge, etc., were taken off, the sod reversed and the surface made as level as practicable. It was then seeded down with fair meadow and rye top seed, with 400 lbs. of your Superphosphate of Lime to the acre. The seed came up well, and at this time the grass is luxuriant and thickly set, that it attracts attention at the distance of half a mile or more, and should the grass not be wintered

killed with ice, there will no doubt be a fine crop next Summer. In this instance, as in many others, the economy of the Superphosphate over common barnyard manure, is evident, the cost of the former being not more than the expense of carting would have been of a sufficient quantity of stable manure to produce a like result.

The Superphosphate of Lime is therefore a valuable fertilizer in the reclamation and renovation of old pasture or meadow lands, and especially so where lands like the above are located a mile or more from the homestead.

Superphosphate of Lime is a valuable article in promoting the growth and increasing the fibrous roots of young trees and grape vines, and when applied in liberal quantities to the roots of bearing trees has a beneficial influence on the size and beauty of the fruit. It is equally useful as a fertilizer for cereals, grasses and vegetables, and from experiments made heretofore, I have hopes that it may prove a preventative of the blast upon young seedling pear stocks and to the mildew on peas and other plants subject to these diseases.

As a quick and also as a durable fertilizer, I have seen many proofs in past years. I have ever considered it as one of the most economical manures in use.

Yours respectfully, MARSHALL P. WILDER.

THE AMERICAN PRACTICAL COOKERY BOOK; or, Housekeeping made Easy, Pleasant and Economical in all its branches. To which are added Directions for Setting-out Tables and giving Entertainments; Directions for Jointing, Trussing and Carving, and several hundred additional Recipes. By a Practical Housekeeper. Illustrated with Fifty Engravings. 12mo., cloth. Price, \$1. For sale at the METROPOLITAN GIFT BOOK-STORE, No. 26 Buffalo Street, Rochester, N. Y., and a Gift given with each book sold, varying in value from Fifty Cents to One Hundred Dollars. On receipt of price of book and 24 cents in postage stamps to prepay postage, a copy with Gift accompanying, will be mailed to any address in the United States.

ADVERTISEMENTS.

A FEW short advertisements of interest to farmers—and only such—will be inserted in the *Genesee Farmer* for twenty-five cents a line, or \$2.50 per square, each insertion, payable in advance. To secure insertion, they should be sent in by the 15th of the previous month. The *Farmer* has large lists of subscribers in every State and Territory, and in all the British Provinces. (It has nearly 5000 subscribers in Canada West alone.) There is no better or cheaper medium for advertising everything of general interest to rural residents in all parts of the United States and Canada.

We will also insert a few "Special Notices," if appropriate to our columns, at fifty cents a line.

For Spring of 1862.

FINE IMPORTED FLOWER SEEDS,

For Sale by JAMES VICK, Rochester, N. Y.

I HAVE received during the present winter, from the most reliable growers of England, France, and Germany, the largest and finest lot of FLOWER and VEGETABLE SEEDS ever imported into this country, embracing all that is old and valuable, as well as everything new and rare, regardless of cost. These seeds are put up in neat packages, sold at a moderate price, and afford the lovers of flowers in this country a rare opportunity to obtain the floral treasures of Europe, as well as the choicest of its vegetable productions. A few of the leading varieties are named below, and a full catalogue will be published about the 1st of February, and mailed to all applicants.

FLOWERS THAT BLOOM THE FIRST SEASON.

ASTERS—Double Dwarf Pyramidal Boquet Flowered, Truffaut's Peony Flowered Perfection, in twelve colors, all mixed, or in separate papers; Imbrique Pompone, or Daisy Aster of mammoth size; New Crown, or Two Colored, one of the most delicate, yet snowy; New Chrysanthemum Flowered.
TULIPS—The Week—New Largest Flowered Dwarf, twelve colors mixed, or each color separate; Large Flowering Dwarf Pyramidal; Wall Flower-Leaved; Branching German; Autumnal Flowering; Emperor.
SALISBURY—Double Camellia Flowered, mixed colors; Dwarf Camellia Flowered Spotted; Rose Flowered, mixed colors, &c.
PILOX DRUMMONDI—Best Scarlet, Leopoldi, Blue with white Eye, Radwizi, &c., all of the finest varieties and most showy colors, mixed in one package or separate, as desired.
CARSPUR—Double Dwarf Rocket; Hyacinth Flowered, and Stock Flowered.

PORTULACCA.—White, Striped with Rose; Yellow Striped; White, Red, Yellow, &c., &c., best mixed, &c.
ANTURRHINUM—Brilliant. Fi. city, Papilionaceum, Dwarf Striped, &c., mixed or separate.
PANSIES—of first quality, both English and German.
CONVOLVULUS MINOR.—Double New, Splendens, New Dark, Striped, &c.
CONVOLVULUS MAJOR—MORNING GLORY—In every variety of color, separate or mixed.

ALSO:

Calliopsis; Chinese Pinks; Copea Scandens, a fine climber; Do-liehos Lablab; Nasturtium, in a dozen varieties; Gillia; Petunia, single and double; Leptosiphon; Escholtzia; Salpiglossis, tall and dwarf; Sensitive Plant; Ice Plant; Cockscomb; Nemophila; Marigolds; Zinnia Elegans; Sweet Peas, a dozen colors; and almost every Annual worthy of cultivation.

EVERLASTING FLOWERS.

I have every known variety of this interesting and beautiful class of flowers, now so popular for winter bouquets, worthy of cultivation.

HELIORHISUM.—One of the largest and most showy, in four varieties, each of many colors. MONSTRUM—Large and fine mixed colors; Rosea pleno; Red; Double Dwarf ACROCLINTUM—Roseum and Album, (pink and white,) one of the most delicate and beautiful.
GLOBE AMARANTH—Red, Flesh Colored, Striped, White, and Yellow, in separate papers.
XERANTHEMUM—Alba pl.; Cerula pl.; Compacta, and Purple.
RHODANTE MANGLESII, Polyacolymina Stuarti, etc.

ORNAMENTAL GRASSES.

These, with the Everlasting Flowers, form the best of Winter Bouquets, Baskets, and other Winter Floral Ornaments. I have twenty varieties. The following are some of the most desirable: Anthoxanthum Gracile, Briza, Minima, Medium and Maxima; Lamarkia aurea; Chloris Radiata; Elymus Hystrix; Lagurus Ovatus; Pennisetum Longistilum; Stipa Pennata.

FLOWERS THAT BLOOM SECOND YEAR.

HOLLYHOCK—Fine seed from best Double Varieties, of Dwarf habit.
PICOTEE and CARNATIONS—From the best Continental growers.
SWEET WILLIAM—Extra fine.
AQUILEGIA—Finest Double varieties.
Aconitum; Canterbury Bells; Delphinium, several beautiful varieties; Digitalis; Everlasting Pea; Oriental Poppy; Lobelia; Penstemon, and many other Herbaceous and Perennial Plants.

VEGETABLES.

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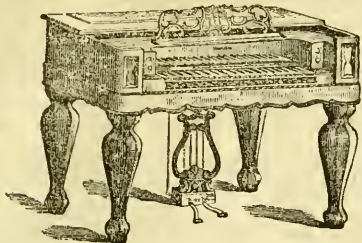
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2. To every person who sends us *two* subscribers and one dollar, we will send the *Rural Annual and Horticultural Directory* for 1860 and 1861, prepaid by return mail.

3. To every person who sends us *three* subscribers and \$1.50, we will send a copy of Liebig's Animal Chemistry, or *three* numbers of the *Rural Annual*.

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February 1, 1862.

ROCHESTER, N. Y.

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Specimen numbers sent free to all applicants.

All friends of rural improvement are respectfully solicited to obtain and forward subscriptions.

The Postage on the *Genesee Farmer* is only 3 cents a year in the State of New York, and 6 cents a year in other States.

Papers are sent to the British Provinces at the same rates as in the United States. No extra charge for American postage.

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**CULTIVATION OF THE BEET FOR SUGAR.**

IN 1747, a Prussian chemist, M. MARGRAAF, in analyzing the Silesian beet root, discovered that it contained sugar. The discovery, however, led to no practical result till near the close of the century. France was then deprived of her sugar colonies. Domingo, which had supplied her with 150,000,000 lbs. per annum, became free and no longer produced sugar for export. The price of sugar in France rose to five francs per kilogramme (fifty cents per lb.). The French government offered rewards for the best method of producing sugar from indigenous plants. The discovery of MARGRAAF was soon turned to beneficial account. The beets at first afforded three per cent. of sugar. By improved methods of manufacture, the yield was increased to four, five, six, and finally to seven per cent. The cultivation of the beet for sugar soon became quite extensive. The manufacturers enjoyed a monopoly of the market, and correspondingly high prices. Secure in this monopoly, the manufacturers neglected the best methods of purifying the juice. The sugar was of a very inferior quality. The peace of 1815 deprived them of the monopoly and high prices they had so long enjoyed, and the cultivation of the beet for sugar was greatly retarded, notwithstanding the high duties imposed on colonial sugars. In 1828 the quantity produced was only 4800 tons.

Since that time, the manufacture has not only recovered itself, but has become firmly established among the industrial pursuits of the country. M. DE LAVERGNE, in his recent able work on French Agriculture, states that there are now 350 sugar works in France, 150 of which are in the Department of the Nord (North), to supply which 20,000 hectares (49,350 acres) are under beet-root; producing an average of 16 tons per acre, and yielding about 576,016 tons of sugar.

In 1852, the protective duties were removed, and such had been the great improvement that had

been introduced, that the manufacturers were enabled to stand the competition of the colonial growers.

By actual trial, it has been found that 120,000 lbs. of beet-root will yield 8,400 lbs. of sugar, or seven per cent., and 5,030 lbs. of molasses. It is estimated that sugar can be produced at four cents per lb.

As we have said, great improvements in the manufacture have taken place. One result of the application of science and capital has been to increase the size of the sugar houses, while it has reduced the number. The small manufactories, with their imperfect processes, can not compete with the large establishments, where everything is done in a scientific and systematic manner.

We see no reason why beet sugar should not be extensively manufactured in this country. The climate is well adapted to the growth of beets, and the present and presumptive high price of sugar would insure large profits. The cane contains twice as much sugar as the beet, but not more than seven per cent. is usually obtained from it in practice. This is no more than can be obtained from the beet-root.

Sixteen tons of beet roots can easily be raised per acre. This would yield, at seven per cent., 2,240 lbs. of sugar, besides molasses. There is, too, another important item of profit—the leaves of the beets and the pulp. Both can be used as food for cattle; and it must be borne in mind that, as nothing is removed but sugar, *all* the manurial elements of the crop are left on the farm. The cultivation of the beet root, therefore, is one of the very best methods of increasing the fertility of the farm. On this point, LAVERGNE remarks:

"It was feared, in the first instance, that the cultivation of the sugar beet would lessen the production of cattle and wheat by occupying the best land. But this fear was ill-founded, at least relative to the best cultivated regions. It is now demonstrated that the manufacture of sugar, by creating a new source of profit, contributes to increase

the other products of the soil. The extraction of the saccharine matter deprives the root of only a part of its elements. Its pulp and foliage supply the animals with an abundance of food; and the returns of the sugar works enable them to add commercial manures, which indefinitely increase the fertility of the soil. In 1853, the city of Valenciennes, the principal seat of the manufacture, was able to inscribe upon a triumphal arch these significant words: 'Produce of wheat in the arrondissement before the manufacture of sugar, 353,000 hectolitres (961,173 bushels); number of oxen, 700. Produce of wheat since the manufacture of sugar, 421,000 hectolitres (1,158,256 bushels); number of cattle, 11,500.'

The pulp or solid residue amounts to about twenty per cent. of the entire root. When divested of the juice, it still contains two or three per cent of saccharine matter, and is greedily eaten by cattle and pigs, which fatten rapidly upon it. It is said not to be good, however, for milch cows.

Ordinary beets and mangel-wurzel contain sugar, but the Silesian beets alone are cultivated for this purpose. By judicious selection and culture varieties have been obtained which contain much more sugar than the ordinary variety. In obtaining this result, however, the size of the root has been reduced. M. KNAUER, of Germany, has produced a variety, which he names the Imperial beet-root, which contains $17\frac{1}{4}$ per cent. of sugar! This improvement places the beet on a par with the cane as a sugar plant, while the cultivator of the beet has several important advantages over the West India and Louisiana planters. The cultivation of the sugar cane occupies from twelve to fifteen months, and it must all be manufactured in a few days, or great loss ensues. On the other hand, the beet requires only about four months to arrive at maturity, and then it can be stored and manipulated at leisure.

COFFEE IN ILLINOIS.—It is said that G. R. HOFFMAN, of Effingham Co., Illinois, raised last year two bushels of coffee. The seed was sent him from Australia. The first year the plants were unproductive; the second year they bore a little, and produced a full crop the third year. He thinks thirty bushels can be grown per acre.

WHERE ENGLAND GETS HER TIMBER.—Great Britain and Ireland import annually some 27,000,000 cubic feet, or 540,000 loads of Canadian pine timber, the greater part of which is manufactured on the Ottawa river and its tributaries. The operations of this manufacture extend over upward of 11,000 square miles, and give employment to more than 40,000 men.

RATS—HOW TO DESTROY THEM.

SOLON ROBINSON, of the *New York Tribune*, well remarks that this species of the genus *Mus* is an almost intolerable nuisance in some portions of the United States. They follow man into the wilderness. When he located on the prairie in 1834, about fifteen miles from neighbors, and forty miles from what has since grown to be the city of Chicago, there was not a rat to be seen or heard of. For several years he was exempt from the pest. Then came abundance of shipping to Chicago, and with it abundance of rats, and they soon spread over the whole land, multiplying and devastating. Now they are great pests in the barns and stacks of prairie farmers.

Our common breed is called "Norway rats," from the supposition that they originated in that country. British naturalists, however, assert that they were introduced into the British Islands from India. If they are tropical animals, all we have to say is that they easily adapt themselves to a rigorous climate, where they multiply at a most prolific rate. What we are yet to do with them is a problem not easily solved. All the receipts to cure the nuisance are only preventive, not eradicated. A correspondent of the *Gardener's Monthly* says:

"I tried the effect of introducing into the entrance of their numerous holes, runs, or hiding-places, small portions of chloride of lime or bleaching powder, wrapped in calico and stuffed into the entrance holes, and thrown loose by spoonfuls into the drain from the house. This drove the rats away for a twelve month, when they returned to it. They were treated in the same manner, with like effect. The cure was most complete. I presume it was the chlorine gas, which did not agree with their olfactorys."

Arsenic is considered by some who have tried it, as a failure, used for the purpose of clearing premises of rats; because they are too cunning to partake of it after witnessing the death of two or three of the family. It is effectual, if the vermin will take the bait.

Strychnine we consider far preferable, and although so much more costly, it requires but a few cents' worth to do the work of death upon a hundred rats. It is also the very best thing to use upon a troublesome dog or cat that comes prowling about your premises. One grain for a dose is sufficient. Mr. ROBINSON has killed numerous wolves by inserting one grain of strychnine in the center of a piece of fresh meat, just large enough for a monthful for a wolf. As rats do not bolt their food, it is a little more difficult to get them to take strychnine; it is so intensely bitter. If it is mixed

with cornmeal, and a few drops of oil of anise is added, it will attract the rats.

Tarring and feathering rats, and then letting them run, has been practised to give the tribe a hint that it would be well for them to leave. One rather smart individual, not having tar, used spirits of turpentine. He was going to drive the rats out of his house cellar. He was entirely successful; for when he let the rat loose in his kitchen, with a "shoo" to it to go down to the cellar stairs, it took the kitchen fire in its course, and then a pile of flax that lay in the cellar way. In two hours there was not a rat in the house, unless it might be a roasted one.

Plaster of Paris has proved a successful poison for rats; and it has the advantage of being quite harmless to have about the house. A tablespoonful of the flour of plaster, mixed in a cup of Indian meal, and slightly sweetened, will be eaten by rats, and kill them. A little grated cheese makes the food more attractive. Oil of anise would be still more so. In fact, by the use of it, rats may be coaxed out of a house to eat poison and die where their dead bodies would not be a nuisance.

Phosphorus, powdered and mixed with meal, a few grains to a teaspoonful, has been often used successfully as a rat poison.

Powdered potash, strewn in the paths frequented by rats, has been known to drive them away from a house. The theory is that it gives them very sore feet, and disgusts them with the place.

In England, rat-catching is a profession—sons often follow it as the business of their fathers. The rat-catcher visits a farmer, and contracts with him at so much a head for all the rats he destroys. His trap is a large bag, which is set with the mouth open, baited with a piece of bread scented with oil of anise and oil of rhodium, the scent of which attracts the rats, and thus he bags enough to fill the contract. He does not desire to rid the premises, as that would "spoil business." A rat-destroyer would not be tolerated by the honorable company of rat-catchers.

Among the many devices for trapping rats, we will mention a few of the best. A large wire-cage trap, where the second rat will go in because he sees the first in there, often proves successful in ridding a place of the pests. A large brass kettle, half full of water, with a small stone island in the center, just big enough for one rat to rest upon, the top of the kettle being covered with parchment similar to that of a drum-head, having a cross cut in the center, is a first-rate trap. Fasten a

small bait upon the point of the cut, and the rat jumps down from a board arranged for the purpose, and through he goes into the water. He scrambles on the island and squeals for help. Another hears him, and comes looking around, sees the bait, jumps for it, takes the plunge, and goes down upon the other fellow's head. Then comes a scramble for place, the stronger pushing the weaker off to take his chance in the water. This muss, as with men, attracts others, and in they go. He has heard of twenty in a night thus inveigled to destruction.

A barrel, one-third full of water, with an island, the surface covered with chaff, and a bait suspended over it, he has been told, is an excellent trap.

Ferrets and weasels have been highly recommended to be kept about the barn to drive away rats. The objection to them is that they drive away the poultry also. Ferrets have been trained so as to be obedient to the call of their master, and used not only to hunt rats, but to drive rabbits out of their burrows.

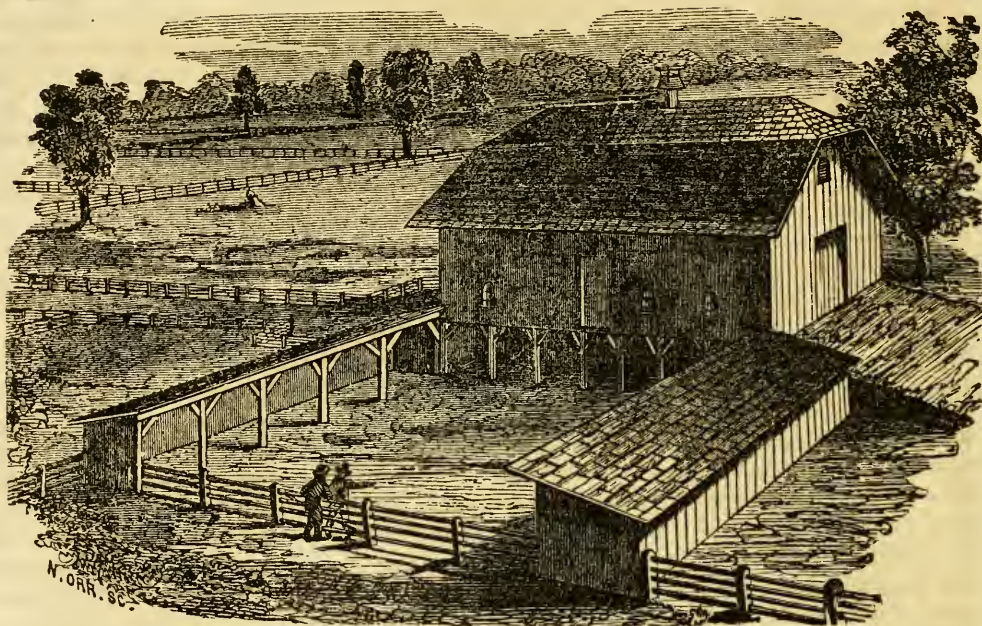
Perhaps the best thing for a farmer to do who is troubled with rats, is to multiply his stock of cats. He knew one farmer who kept fourteen cats, keeping up that number for more than a year, by which means he got rid of all annoyance from rats, and they also hunted the rabbits out of an adjoining grove.

DIGGING POTATOES—AGAIN.—G. R. UNDERHILL writes the *Country Gentleman*, in reference to the article in the *Genesee Farmer* in regard to digging potatoes early, that he has found from experiments that no amount or kind of manure would cause the potato to become diseased, and that the sure preventive is to plant as soon as possible in the spring, with the early ripening kinds, and dig them as soon as they are ripe. If every farmer would adopt that plan, he is satisfied that we should soon hear no more of the *potato rot*.

GOOD COWS.—C. A. HOLMES, of Tompkins Co., N. Y., informs us that he sold last year, from three cows, between the 20th of March, and the 20th of December, or nine months, 750 lbs. of butter, besides supplying his family of three persons with what they wanted for use.

JACOB WAY, of Peacham, Vt., is reported as having raised 110½ bushels of wheat, by measurement, on 2½ acres of land.

A CHESTNUT gelding, called Garibaldi, in a late hunt in Yorkshire, Eng., jumped 31 feet clear, over high posts and rails.



SIDE-HILL BARN WITH SHEDS.

SPIRIT OF THE AGRICULTURAL PRESS.

FAT COW.—H. G. WHITE, of Framingham, sends the *Boston Cultivator* the weight of a five-year old Short-horn cow, Pocahontas 5th, lately slaughtered by PAOLI LATHROP, of South Hadley, Mass., as follows: Live weight, 1730 lbs. Dead weight: four quarters, 1,118 lbs.; tallow, 127 lbs.; hide, 90 lbs.; total, 1,135 lbs. It is stated that all the grain she ever consumed was less than 15 bushels.

BARN-YARDS AND MANURE.—The *Country Gentleman* gives the following hints on this subject:

1. The barn-yard should be as small an enclosure as the amount of stock it is to accommodate will allow. It should be as dry as any place out of doors well can be—neither overflowed from higher ground, nor receiving the rain and melted snow from the surrounding barns and out-houses. It should be sheltered from the wind and open to the sun, that it may be a place of comfort to its occupants. It should contain a convenient supply of pure water for the stock, to save labor and exposure, and the waste of manure always occurring when the stock must seek water outside the barn-yard. If small, dry and sheltered, it will be easily kept littered, and thus better fit it for wintering stock and making and saving manure.

2. The greatest sources of loss of manure are from washing and over-fermentation or burning. In winter, yard manure suffers but slightly from the latter cause, and from the first there is little loss in a well arranged yard. But some fermentation is required to fit manure for use, and this end may be furthered by a little care in mixing and arranging the different materials for the compost heap. The stable manure should be spread around the yard, and particular care should be taken to mix that from the horse-stalls with that of the cattle, that the tendency to rapid decomposition of the first, may help the colder nature of the latter. In this way, too, the litter used is brought into a better state for absorbing the liquid parts, and the whole supply of manure is rendered more equable and of higher value. In no case should we neglect to provide some absorbent for the liquid manure, as it is of equal value with the solid excrement.

3. The sheep sheds should be well littered for the comfort of the animals, as well as to make more manure, but

we have found no better method of saving the same from heating on the approach of warm weather, and consequent loss, than to remove the roof of boards (covering our sheds,) and exposing the contents to the weather. If drawn out and piled in heaps, it should be mixed with muck or straw yard manure, and well moistened, or waste will occur from heating. Where open to the rain, it will usually decompose slowly, and be in a state for use on fall wheat or for top-dressing grass lands in autumn.

THE PROLIFICNESS OF SOWS.—A correspondent of the *Germanatown Telegraph* writes: "On the 25th of December, 1860, I had a Berkshire sow nine months old to give birth, and raise to four weeks old, nine pigs, which I sold at \$2 apiece, making \$18. She had the company of the male in a few days after the removal of the pigs, and on the 20th of May, 1861, she came with fourteen pigs, raising all but one to four weeks, which I sold at \$1.75 each, making \$22.75. After the removal of this litter, she had the company of the male again, and on the 24th of October, 1861, just ten months from the time of the first litter, she came with ten fine pigs more, bringing them safely along to four weeks old, when I sold them for \$1.30 each, making \$13—pigs being unusually plenty last fall, and consequently low—making an aggregate of thirty-two pigs from one sow, within a period of ten months, and bringing me in round cash \$53.75.

After the lacteals were dry, the mother was ready for the meat tub. I had a Suffolk sow, also, at the same time with the Berkshire alluded to, that did fully as well, having in a period of eleven months had thirty-one pigs, which brought me \$45, four of them were reserved for stock pigs, and not counted; and after the removal of the last litter I sold her to the butcher for \$31. In all the lots I had but two whinnocks.

The sows ran in good grass during the summer, where

they had access to water, and during the period of gestation shifted for themselves. But when they had their little families about them, and a week or so prior to their farrowing, I fed them unsparingly."

UNDERDRAINING.—The *Canadian Agriculturist* truly remarks: "The underdraining of land is the foundation of all agricultural improvement."

GOOD HOGS.—B. F. HANCOX & Co., of Holley, N. Y., write the Rochester *Union* that they purchased of D. O. BAILEY, of that town, six pigs only nine months old, that weighed respectively 361, 391, 393, 444, 448, and 487 lbs., an average of 420½ lbs. each.

A HARNESSING ARRANGEMENT.—A correspondent of the *Country Gentleman* describes the following method of harnessing and unharnessing a horse to a single wagon: "In the first place my harness is made with a collar open at the bottom, and no buckle, but the hames are fastened to the collar, and there is one buckle to fasten them both. The tugs and hold-back straps are not unhitched; the lines lie over the dash, where they will not get under the horse's feet; they may be unbuckled from the headstall, or remain with it, and all hung up together. I have a wooden hook like an ox-bow, with half the length of one side cut off, so as to hook under the back saddle, collar and headstall. A cord is attached to the long end of the hook, and put up over a pulley, and through another pulley, and down to about three feet from one side of the horse. Unbuckle the belly-band and the hame-straps, put under the hook, pull all up, and make the cord fast to a small hook at the side of the carriage-house. A horse will soon learn to place himself back into the breechings when the harness and shafts are let down; three or four buckles are fastened, and he is harnessed."

LEACHED ASHES.—Prof. BUCKLAND, the able editor of the *Canadian Agriculturist*, says:

"Wood ashes always contain a considerable amount of carbonate of potash, lime, etc., and are consequently very beneficial to such plants as require large quantities of these alkalies, such as Indian corn, turnips, beets, and potatoes. Leached ashes have lost much of the principal alkaline salts, and have been deprived of the greatest part of their most important soluble ingredients; still they must not be regarded as an unimportant fertilizer, as the lime and other mineral matter which they contain is always more or less beneficial to the soil. Unless the land is well worked and contains sufficient organic matter, we should not consider ashes, whether leached or unleached, as alone adequate to the production of a good crop of wheat, turnips, or corn."

There is something about old leached ashes that we do not understand, though we have given the subject considerable attention. We have seen instances where old leached ashes have had an excellent effect on wheat, while unleached ashes seemed to do no good. We have thought that perhaps the potash and soda, which had been washed out, were replaced by ammonia and nitric acid from the atmosphere. The subject is one worthy of investigation. At all events, it is certain that leached ashes frequently have a very beneficial effect; and if the above hypothesis is true, the older they are the better.

CUTTING OFF THE TOPS TO PREVENT POTATO ROT.—G. P. SERVISS, of Montgomery Co., N. Y., writes as follows to the *Country Gentleman*:

"I had about a quarter of an acre of June potatoes

planted on yellow loam ground. They grew finely, and had far advanced to maturity, when I discovered their tops began to be diseased. I immediately took a scythe and cut off the tops of all the rows excepting two near the center of the piece. One of the latter, I left in the state nature had formed it. The other, I pulled the tops by hand, leaving the tubers in the ground.

"Now for the result. At digging time in the fall, I found the tubers in those rows that had their tops cut off, and the row that had its tops pulled off, of equal size, and as near as I could judge had an equal number of rotten tubers in a row, and they were but few. The row that was left as nature had formed it, had about four times as many rotten tubers as either of the rows that had their tops cut off, or the one that had its tops pulled off by hand. Not only that, but the tubers that were not injured were no larger than the tubers were in the former rows. Thus showing conclusively that they had not grown any after their tops became diseased, and that it would have been better to have cut their tops, thereby checking the disease before it extended to the tubers.

"Some farmers recommend digging immediately after the tops begin to show signs of the disease. But I prefer cutting their tops and leaving the tubers in the ground till quite late in the fall, for two reasons. First, they keep their flavor better than they would if exposed to the air. Second, there are sometimes tubers that have been inoculated with the disease which can not be discovered if dug immediately, and if put in the cellar or in heaps in this way, will cause the destruction of many tubers that were free from disease at the time of digging."

WARTS ON CATTLE.—The *Canadian Agriculturist*—good authority—says: "Warts consist in a morbidly increased growth on the outer skin. They generally originate on young animals, and are supposed to be associated with that state of the system when the tissues are in a growing state, as they usually appear during the period of growth, and disappear as age advances. Epidemic warts, when seen in the horse, are found to occupy various situations, as on the nose, eyelids, ears, between the hind legs, or sheath, and under the abdomen. When occurring in cattle, they are chiefly confined to the inferior parts of the abdomen, teats, dewlap, or about the head. The easiest and quickest method of getting rid of warts, when extending over a large surface, is to remove as much as possible with the knife, and apply a hot iron to stop the bleeding, or tie the blood-vessels, and afterwards dress cautiously with arsenical ointment, at intervals of several days. When presenting a well defined neck they may be removed by tying tightly around them a piece of waxed whip-cord; this cuts off all nutrition, and as a consequence they drop off. Calomel is also useful in removing these excrescences."

CABBAGES EVERY YEAR.—J. J. H. GREGORY, of Hubbard squash and Mammoth cabbage memory, in a communication in the *Country Gentleman*, lays it down as an improbability, if not an impossibility, to raise good cabbages two or more seasons in succession on the same piece of ground. That cabbage crops succeeding the first will be of all sorts—some long legged, and some short legged, some stump footed, and some no footed at all, and all of them lousy, and so on through all the catalogue of cabbage infirmities and dispositions.

SOWING PEAS.—The *Michigan Farmer* says: "Peas may be planted on any good, dry soil at the earliest moment after the surface is thawed out enough to give earth sufficient to make the furrow in which to sow them. The varieties which we would recommend to sow first would be the Early Kent, Dwarf Blue Imperial, and the large White Marrowfat."

YORKSHIRE PIGS.—A correspondent of the London *Mark Lane Express* gives the weights of three "cottagers' pigs," which were from the same litter, farrowed on the 20th December, 1860. Their respective ages and weights when killed were as follows: No. 1, killed at ten months and five days old, weighed 374 lbs.; No. 2, killed at ten months and thirteen days old, weighed 372 lbs.; No. 3, killed at ten months and eighteen days old, weighed 421 lbs.—equal to an average of 385 lbs. at ten months and eight days old.

SORREL AND OTHER WEEDS.—The *Massachusetts Ploughman* well says: "Where the soil is free of rocks, there is no danger of sorrel prevailing to any extent. A good plow, well held, will bury it deep enough to prevent its appearance through the summer, provided that some valuable plant is encouraged to take its place. Every decent soil will bear something in the course of the summer, and when the farmer neglects to improve his land he must expect to find it green with some kind of vegetation. A good growth of clover will bury all the sorrel and smother it for a whole season. A growth of buckwheat will smother all other vegetation, and come near killing all foul weeds. And buckwheat will grow in very poor soils."

HEMLOCK BARK FOR DRAINS.—GEO. CAMPBELL, of West Westminster, Vt., writes as follows in the *Ohio Farmer*: "Among the various materials that we see recommended for the construction of drains, I do not recollect of ever noticing that of hemlock bark. In sections of country where the hemlock tree abounds, this is one of the cheapest and most durable materials for underdraining to be found. Hemlock timber, cut in February or March, will peel in May, or as soon as we have a few warm days. June, however, is the best time to peel bark, and any one that is intending to do much at the business, would do best to cut his timber in June.

The bark for drains should be cut about four feet in length, and from twelve to fifteen inches in width, and spread out in the sun with the flesh side up, and it will roll up in a few days and be ready for use. If the bark is too thick for the action of the sun to do the work of rolling, a round pole of the size you want the drain can be used, and the bark pressed around and left to dry. It is as durable as tile, and not half as expensive. Try it."

TOP-DRESSING GRASS LANDS IN THE SPRING.—A correspondent of the *Country Gentleman* says: "The fall has hitherto been regarded by the majority as the best season of the year to top-dress grass lands; and, upon close, hard soils, upon flat and level surfaces, it has been practiced with excellent success. But taking New England lands, with rare exceptions, is it certain that the fall is preferable to the spring? I think not, and the reasons for this conclusion are obvious. In the autumn, more than in the spring, top-dressing is exposed to hazards of loss. If the succeeding months are wet, and the earth is washed by continuous rains, much of the fertilizing quality of what has been applied is rendered valueless. It is different in the spring.

Manures or composts applied just after the frost has begun to leave the ground, are absorbed more readily, and the temperature of the surface is rendered several degrees warmer by the covering it has received.

Grass lands that are top-dressed in the spring will be

found to come forward earlier than those thus treated in the autumn, and the crop will prove upon trial, to be larger.

I am aware that most farmers can more conveniently attend to this sort of work in the fall than in the spring, and I fear that this is the principal reason which has led them to adopt the practice now so common. The heaviest crop of grass that came under my observation during the last hay season, was a piece of ground about three acres which had been top-dressed in the last of May; and a piece of mowing, upon which was spread, in October, a generous dressing of stable-manure, did not yield nearly so well as a piece of ground adjoining, of the same quality, top-dressed in the same way in the last days of February.

In respect to light, sandy soils, there is not a doubt that top-dressing in April will prove more productive than if done at any other time of the year."

AGRICULTURE IN OREGON.—At a recent Agricultural Meeting in Boston, as reported by the *Massachusetts Ploughman*, Mr. GAREY gave the results of his observations, as a practical farmer, in Oregon during the past eleven years. The climate there, he said, is very different from the climate here. He lives five degrees of latitude farther north than we do, and yet he knows little of frost in Oregon. We have three great valleys, which present our agricultural regions. We have mountains rising to an immense height, of a conical shape, covered with perpetual snow. Our climate is more equal than yours. Cattle have generally lived unhoused through the year.

The cereals are much cultivated. Wheat is a great crop with us, though there is no lime in the soil. [Did't our friend of the *Ploughman* put this in? He has, we believe, always contended that lime was unnecessary in New England—and in this he may be right. But if there is "no lime in the soil," it is certain that wheat will not grow, or any other crop.] The wheat has a very strong stem. I have seen wheat heads from six to eight inches in length. Our average crop of wheat is twenty bushels to the acre. Sometimes we get fifty bushels, though our mode of farming is not the best. One piece of land produced from thirty to forty bushels of wheat to the acre four consecutive years. We raise Fall wheat sowed in February, but the best wheat is sowed in June, and is a year in maturing. Our oat crop is an important one. Indian corn is injured by the cool nights. The best apples in the world are raised in Oregon. The pear and the plum grow well. The cherry grows pretty well, but the peach fails. The pea is raised largely.

The farmer has a great advantage, for he does not have to labor as in New England, the winters being so very mild. The natural grasses are so good, that other kinds are not much cultivated. The soil is not as rich as that of Illinois, but it seems to be more durable.

In Washington Territory there is a different soil, producing vast quantities of timber, the forests standing 300 feet high, or a hundred feet higher than those of California. The trees are pines, arbor vitae, the yew, etc.

The only nut in Oregon is the hazel nut. The waters on the coast abound with fish. There is much desert in the country, but there are fertile spots amid the deserts. In some cases, irrigation by artificial means is required

MANAGEMENT OF HONEY BEES.

In the month of March we frequently have a few warm, sunny days, almost as mild as June. Such weather is frequently more injurious to bees than the coldest days of winter. If the hives are placed in a winter bee-house, made dark to prevent the bees from leaving their tenements, which is right, the warm atmosphere without will work its way in, and the bees will become aroused from their torpor, or state of hybernation, and will endeavor to escape from their confinement, however dark the room may be.

In such cases, the apiarian is much perplexed, and scarcely knows what to do. Mr. QUINBY, of Montgomery county, who has wintered bees extensively in dark rooms, says that he has often been compelled to place large quantities of ice among his hives, in order to cool the atmosphere around them on such spells of warm weather.

If the weather were to remain mild at such times, we should at once remove the bees to their out-door stands; but in most cases, within forty-eight hours, we again have the thermometer down to zero, or near that point, or a deep snow that would be much worse for the bees if removed, than to remain imprisoned, however warm the weather might be.

The confining of the bees in their hives does not remedy the evil, as the attendant excitement and their struggles to escape are about as destructive as to allow them to leave their hives at will. In some cases, where no ventilation is afforded but at the regular passage-ways, and these places of egress and ingress being closed with perforated tin, wire cloth, etc., which would give an abundance of air, if the bees would remain between their combs, but they come down and crowd around the openings in such masses that suffocation is produced. This effect is generally produced by the bees generating a dampness, and a chill ensues, which, as night approaches, stiffens the bees, and they become an inert mass at the passages, and prevent all air from entering. In out-door situations, where bees are fastened in their hives, this fatality is much more liable to occur, on account of the more sudden and greater degree of change in the atmosphere on the approach of evening on a mild day in winter or spring. It is, therefore, never good management in winter or spring thus to confine bees, without giving extra ventilation. Raising the hives and placing thin wedges at the corners, about an eighth of an inch thick, is perfect security against suffocation as above stated.

It matters not where or how bees are wintered, the warm days of March and April are periods of great danger in our northern climate. If the bees remain out-of-doors upon their summer stands, the hives should be shaded by placing broad boards against them, which will somewhat darken the passages and keep the interior of the hives cool, and the bees will not desire to leave their hives half so much as they do when the warm rays of the sun strike directly upon them. By raising the hives slightly as above stated, and having the passage ways closed with perforated strips of tin, to run in small wire staples, the bees can be kept in their tenements without much excitement among them, except on very warm days, on which occasions, if the ground is free of snow, it is

best to remove the front boards and allow the bees free exit.

Great care should be taken not to allow the bees to leave their hives when the ground is covered with snow, as vast numbers of them become chilled, and blinded by the dazzling, reflected light, and drop down upon it never to rise.

When bees have been confined in their hives all winter, many of them become unable to fly, caused, perhaps, by not having voided their *fæces*; and if the hives be set out on a moderately cool day, the loss of bees will be much greater than if given their freedom on a warm, sunny day, with a south wind, and the ground entirely free of snow.

It is good management, if the ground be damp around the hives, to strew refuse hay or straw about them a few feet, to afford the bees a dry alighting place; and if the boards that were used to shade the hives be placed one end on the ground and the other against the floor board of the hive, many bees that are unable to fly after having left their hives, will be enabled to enter by crawling up these boards.

I have frequently found it necessary to remove the snow for a space of fifteen or twenty feet around my apiary in the spring of the year, in order to allow the ground in the immediate vicinity of the hives to become clear, upon which I have kept a supply of straw till about the 1st of May; and by a careful use of shading boards, I have often prevented my bees from leaving their hives, without closing the passage-ways. I dislike to obstruct the passages, if I can avoid it, and keep the bees from sallying out when it is unsafe for them to do so; but one who can not be constantly on hand to attend to his bees, had better shut them in.

ROBBING.—As soon as warm weather sets in, even but for a day or two, bees will commence robbing each other's stores. The strong families attack the weak ones; and it does not appear that the robbers are in want of honey at all, but rather have a supply to spare to those that are really famishing. It is the nature of the honey bee to rob, and they seem to exhibit a reckless daring in the ratio of the numbers of the family, and the abundance that they possess.

Weak families, with sheets of comb filled with honey that they are unable to protect, are in particular danger of being robbed. A single bee from a strong family, perhaps, will enter the hive—there being few or no bees at times to guard the entrance; it ascends an outside comb, and near the top finds it well filled with nectar. It fills its honey vesicle, and straightway departs for its home, and there discloses its grand discovery. Yes; it is a fact, that bees have a faculty of *imparting information*. This bee will, probably, inform a dozen others where the treasure is to be found, and this dozen, in turn, will inform as many others, till thousands have infested the robbed hive.

Let a hive be in a state of being robbed, and the bees suddenly ejected, and the hive closed, after a day of fruitless struggles to enter, the robbers will depart. Leave that hive two or three days thus closed, and then on a warm, sunny day open the passage-ways, and mark the result. Presently, a single robber will flit along, singi-

a peculiar war-song, and, seeing the coast clear, darts in and secures a load of honey, and returns to its home. In a few minutes several bees will flit along, stopping in front of the robbed hive, near the passage-way, still poised on the wing and singing that peculiar robber-song with which all experienced bee keepers are familiar. One by one they enter, and the result is, that frequently in fifteen minutes I have known a previously robbed hive, after a period of being closed, to be assailed by thousands of bees, through information imparted by a single pioneer robber.

The remedy against robbery, is to contract the passage-ways of the hives, not after the damage has been commenced, but before it is effected. Examine your families as you set them out in the spring, and immediately close up the passage-ways of all weak ones, so that but one or two bees can go in and out at the same time. Some families that are moderately strong in numbers should have a half an inch of space, more or less, according to the number of bees in the hive. Keep the passage-ways thus closed till the *apple trees blossom*, after which they may be fully opened.

When a hive is discovered fully in possession of robbers, it should be closed at once, and the robbers let out at evening, when the hive should be closed again. In some cases, by removing such hives, if the bees are not wholly overpowered, or by a careful opening of the passage-ways after a day or two, the bees may be saved; but twenty years experience has convinced me that when robbers get control of a hive of bees, it is useless to attempt to save anything but the honey remaining in it.

Clinton, N. Y.

T. B. MINER.

THE CARROT—ITS VALUE, PRODUCTIVENESS, &c.

EDS. GENESEE FARMER:—Much has been written within the last few years upon the subject of carrot cultivation; and the result is now being made manifest in the greater practical interest awakened, and the more extensive cultivation of that excellent root. In Illinois it is particularly true that during the past season more carrots were raised than had been before for many years. Experience will demonstrate, what thousands are now ignorant of, that this root is one of the most profitable of farm products, and consequently should be produced in greater abundance than it now is. Parsneps, beets, and the different kinds of turnips, are also valuable products; but I reckon the carrot superior to them all. I am prompted to make these remarks from a personal experience of more than twenty-five years. I can not, therefore, refrain from earnestly recommending its cultivation to the readers of your widely circulated paper.

OF ITS VALUE.

Its value, so far as its nutritive properties are concerned, can only be ascertained proximately by a comparison with the coarser grains, as corn, peas, barley, etc. As food for swine, sheep, cows and horses, one bushel and a half of carrots, it is believed, is equal to half a bushel of shelled corn. Others estimate that one bushel of carrots is equal to a like quantity of Illinois corn in the ear—this corn yielding about twenty quarts from one bushel of ears. This may be thought too high an estimate

of its value. But supposing it is worth only one-quarter as much as corn, still it is a valuable product. I have exchanged bushel for bushel, and believe this is the general rule of exchange here, though, of course, such an exchange could not be expected in sections of the country where the market price for corn is much higher.

ITS PRODUCTIVENESS.

When it has been proved again and again that from one thousand to fifteen hundred bushels can be raised on an acre, can any man for a moment doubt the value of such a crop? Can a quarter of that number of bushels of corn be raised on an acre? Can you get an equivalent in oats, or rye, or barley? No; I venture to say you could not, with the same amount of labor, on *any number of acres*.

ITS ADAPTATION FOR FOOD.

I find from experience, that when fed to swine, young cattle, sheep, cows and horses, all seem fond of the roots and thrive on them. Pigs can be wintered on them profitably with but little other food, as has been repeatedly demonstrated. Sheep do well on them. Cut fine with a root cutter or other instrument. They should be fed to them in long troughs or shallow boxes; and it is a pleasure to see with what greediness they will devour them. They seem peculiarly adapted to ewes, especially in the spring, before and while they are nursing their young. Milch cows in the fall, winter and spring, also thrive on them, giving a greater quantity and a better quality of milk. I can make in mid-winter more butter and of better quality from a half a bushel of carrots per day, than I could in mid-summer without carrots. They seem to possess some hidden property which gives a healthy tone to the lacteal organs, proving beyond peradventure their adaptedness and value as food for cows. That they are also excellent for horses, has been repeatedly proven. Horses feed freely on them, and, with a suitable quantity of good hay, will ordinarily need but few oats to enable them to perform a great amount of labor; and at the same time will be less liable to diseases of the bowels and chest than when fed exclusively on hay and grain.

What is not least among their recommendatory qualities, is their adaptedness to table use. Most people are fond of them when prepared for the table in the same way as beets. They make excellent pickles. When dried and ground the same as the coffee-bean, they make a very agreeable and healthy beverage. They also make excellent pies, and are pronounced by many as decidedly superior to the best pumpkin pies, prepared as they are very much like them, by the addition of milk, eggs, sugar and spices, after being carefully stewed and mashed.

THEIR CLEANLINESS.

Everyone who has raised them knows how little dirt adheres to them, especially if grown in a sandy soil and dug while the ground is not very moist. This fact is no small recommendation, since the labor of washing before using them is dispensed with.

THE COMPARATIVE CERTAINTY OF A FULL CROP.

No crop that the farmer raises or can raise is more certain than the carrot. The tender plants,

when they first shoot up are not so much affected by little insects as the turnip, the beet, etc. Nor are they affected as much as many other plants by the extremes of weather—cold and heat, wet and dry. When corn and potatoes are wholly destroyed in the spring by protracted cold and wet weather, or in the fall by early frosts, these still flourish and yield abundantly. I do not mean that they are not at all affected by these causes, and that they always yield equally abundantly in cold or warm, wet or dry seasons. No; I only say that they are less affected than most farm products, and hence can be relied upon as yielding a remunerative crop, if the seed be sown at the proper season and the growing plants are suitably cared for.

TIME OF SOWING SEED.

I would recommend that the seed be sown as early in the spring as the state of the weather and ground will permit. They may be sown with safety, however, as late as the 15th of May in this latitude; and if the extreme cold weather should hold off late in the fall, they will attain a good size.

SOIL BEST ADAPTED.

The carrot will grow in almost any soil, as well as in almost any climate. And this is one of its recommendations, and not among the least, of its value to man. It will grow on the hills and in the valleys—on the woodland and on the prairies—in the broad field and in the garden. The soil, however, *best* adapted, is a rich sandy loam. A naturally cold and wet soil is obviously unsuitable, unless it be first thoroughly underdrained. Stiff clay with a hard subsoil is also unfit, unless it be deeply trenched, thoroughly pulverized, mixed with a liberal quantity of well rotted manure, and the redundant water retained in the subsoil be drained off. This pulverization and manuring are requisite on all soils to insure a full crop, as the roots under favorable circumstances will attain to great length. I grew some last year that measured nearly thirty inches in length.

There is probably no better soil or climate in the world for the production of this inestimable esculent than are found in Illinois. Over all these broad and fertile prairies. Nature seems especially to have lavished her blessings in such rich profusion, that it may be produced in enormous quantities, at comparatively little cost. But there are suitable soils and locations on almost every farm in every State and Territory in the North American continent.

METHOD OF SOWING.

If for field culture, the seed should be sown in drills, a suitable distance apart to admit of the free passage of a horse-cultivator. If you wish to use hand-labor alone, the rows may be nearer (18 inches being a suitable distance), and the plants may be left to grow from 5 to 10 inches apart in the rows. The seed may be sown with the hand or seed-drill, making a liberal allowance for poor seed, the destruction by worms and other casualties. Some prefer to sprout the seed before sowing. In this case, it will have to be sown by hand, as this process unfits it for a free distribution by the drill. In soaking the seed, great care should be taken not to sprout them too much before sowing. As soon or before the tender germ is visible, it should be

sown. Previous to sowing, it should be mixed as wanted with a sufficient quantity of dry sand to enable it to escape freely from the fingers. The process of sprouting has one advantage; it pushes the growth of the plant ahead of the weeds, so that it is not so much work to weed them. Whether sown wet or dry, the seed should be put in immediately after the ground is prepared for it, being careful to sow the rows perfectly straight and equi-distant from each other. If the seed be sown dry, it may be sown with a hand-drill, with great accuracy and rapidity. With a good drill and clean seed a man will sow from one to two acres per day.

METHOD OF HOEING.

As soon as the young plants are up, and the line of the rows can be distinguished, the stirring of the ground and the killing of the weeds should be commenced. This work should not be delayed a single day, as a great saving of time and labor is thereby effected.

By the help of labor-saving implements, of which there are many, this work (the most dreaded and discouraging of all in the raising of this crop) is made comparatively easy and light. Thus the labor of raising carrots is reduced more than one-half. Let no one, therefore, be deterred from raising them through fear of the fancied cost in cultivating, since the labor can be so much reduced. Let every man use all the helps that science and invention have placed within his reach, to increase the product of this valuable esculent. What golden treasures may yet be dug out of the earth in these yellow roots! What immense wealth may yet be added to the nation by their more general use among stock growers in every part of this vast agricultural domain! Let each individual who has it in his power contribute his mite to swell the aggregate of that wealth; for he who shall do it will be deserving of rich encomiums and prove himself a benefactor.

McHenry, Ill.

O. R.

HORSES AND THE WAR.

THE Secretary of the Vermont State Agricultural Society, in his Annual Report, remarks:

The number of horses in Vermont before the breaking out of the rebellion, was about fifty-five thousand, since which time, it is calculated that nearly ten thousand have been carried from the State for army purposes. This immense levy for horses has been made throughout the entire country. When it is considered that comparatively few of these horses will find their way back: that the number that will die of disease or become unfit for service is twenty times as great as it would be were they used in other kinds of business; that to meet this great want of the government, a large proportion of the business horses in our large cities, which have been thrown out of service by general prostration, have been bought up: it readily appears that, even during the war, horses must advance in price; and at its close, when business shall revive and trade resume its former channels, the demand for good horses must exceed the supply. Reasoning from these premises, no more profitable labor can be engaged in than the production of good business horses."

MYSTERIES OF THE POULTRY YARD.

If we call to mind the many and valuable acquisitions from both the animal and vegetable kingdoms which have been made subservient to the use of man within comparatively a very recent period, it is not too much to believe that others of nearly or quite equal value, still remain to reward the labor and pains of a persevering search. Then the whole of Central Africa, Central Australia, great part of China, and Northern India, and innumerable half-explored or unexplored islands, all waiting to be ransacked for our benefit. And without depending upon these distant regions, we know not yet what we may find at or near home; the Capereali, by an easy importation, has been rescued from extinction in Great Britain.

Amongst the living tributaries to the luxury of man, the turkey is an example of the results yet to be expected from the exploring spirit of our day. It is the most recent, and, except the hen and the goose, the most valuable of our domesticated birds. We may, indeed, call it quite a new introduction; for what, after all, is a period of three hundred, compared with the time during which man has had dominion over the earth and its brute inhabitants? The obscurity which hangs over the transmission of the turkey from America to Europe, and which there is little chance of clearing away, except by industrious ferreting amongst old family records and memorandum books, shows that those who introduced it to the Old World had no idea of the value of what they were importing; but probably regarded it like any other remarkable production of nature. The young would be distributed among friends; these again would thrive and increase, and the nation would suddenly find itself in the possession of a race, not of pleasing pets, but of valuable, prolific, and hardy stock of poultry. Such we take to be the history of the turkey in England; and zoological and ornithological societies may hereafter find that some creature that was designated, or undervalued, or even yet unobtained, will prove unexpectedly domestic and profitable, (it may be the Cropses, Curassow, Gnyan, or the elegant Honduras turkey,) to further which great object of these associations, they can not do better than communicate spare specimens, on the most liberal and encouraging terms, to such persons as they believe competent fairly to test their value.

The reason why the turkeys seen in our poultry yards do not vie in splendor of plumage with their untamed brothers, is that we do not let them live long enough. A creature that does not attain its full growth till its fifth or sixth year, we kill at least in the second, to the evident deterioration of our stock. But let three or four well-selected black or bronze turkeys be retained to their really adult state, and well fed meanwhile, and they will quite recompense their keeper by their beauty in full plumage, by their glancing hues of gilded bronze and black, and the pearly lustre that radiates from their polished feathers. In default of wild specimens, birds like these are sought to complete collections of stuffed birds.

The demand for such large birds among the poultry dealers, the temptation to fat them before they arrive at this stage, are so great, that few farmers can resist sending their 14 to 18 lb. cocks

to market, while a young cock of the year, they think, will answer every purpose next spring as well. Some even deem it an extravagance to keep a turkey cock at all, if they have not more than two hens, while they would send on a visit of a day or two to a neighbor who has a male bird.

When the hen has once selected a spot for her nest, she will continue to lay there till the time of incubation, so that the eggs may be brought home from day to day, there being no need of a nest egg, as with the common fowl. She will lay from 15 to 20 eggs, more or less. Her determination to sit will be known by her constantly remaining on the nest, though empty; and as it is seldom in a position sufficiently secure against the weather or pilferers, a nest should be prepared for her by placing some soft straw, with her eggs, on the floor of a convenient out-house. She should then be brought home and gently placed upon it. It is a most pleasing sight to witness the satisfaction with which the bird takes to her long-lost eggs, turning them about, placing them with her bill in the most suitable position, tucking the straw around and under them, and finally sitting upon them with the quiet joy of anticipated maternity.

Thirteen eggs are enough to give her; a large hen might cover more; but a few strong, well-hatched chickens are better than a large brood of weaklings, that have been delayed in the shell perhaps twelve hours over the time, from insufficient warmth. At the end of a week, it is usual to add two or three hen's eggs, "to teach the young turkeys how to peck." The plan is not a bad one; the activity of the chickens does stir up some emulation in their brethren; the eggs take but little room in the nest; and at the end of the season, you have two or three very fine fowls, all the plumper for the extra food they have shared with the young turkeys.

In four weeks the little birds will be hatched; and then, how are they to be reared? Some books tell you to plunge them in cold water to strengthen them; those that survive will certainly be hardy birds (an experiment which some women are cruel enough to try upon their own offspring.) Air and exercise increase the strength of any growing animal; but cold and hunger only dwarf and weaken. Others say, "make them swallow a whole pop-corn;" which is as if we were to cram a Spitz-enberg apple down the throat of a new-born babe. Others again say, "give them a little ale, beer, or wine." We know, unhappily, that some mothers are wicked enough to give their infants gin, and we know the consequences.

Follow nature; give them nothing; do nothing to them; let them be in the nest under the shelter of their mother's wings, at least eight or ten hours; if hatched in the afternoon, till the following morning. Then place her on the grass, in the sun, under a roomy coop. If the weather be fine, she may be stationed where you choose, by a long piece of list tied round one leg, and fastened to a stump or stake. But the boarded coop saves her ever-watchful anxiety from the dread of enemies above and behind—the crow, the hawk, the rat, the weazel—and also protects herself (she will protect her young) from the sudden showers of summer. Offer at first a few crumbs of bread; the little ones for some hours will be in no hurry to eat;

but when they do begin, supply them constantly and abundantly with chopped eggs, shreds of meat and fat, and boiled Indian meal mixed with chives or lettuce chopped fine. Mutton suet, poured over shorts or middlings, cut up when cold; also, liver boiled and minced, are excellent things. The quantity consumed costs a trifle; the attention to supply is everything.

The young of the turkey afford a remarkable instance of hereditary and transmitted habits. From having been attended for many generations with so much care, they appear naturally to expect it almost as soon as they are released from the shell. We are told that young pointers, the descendants of well-educated dogs, will point at the scent of game without any previous training; and so turkey chicks seem to wait for the attention of man before they can have any experience of the value or nature of their attentions. Food which they would refuse from a dish, they will peck greedily from the palm of a hand; a crumb which would be disdained if seen accidentally on the ground, will be relished from the tip of the finger. The proverb that "the master's eye fattens the hare," is applicable to them, not in a metaphysical, but in a literal sense; for they certainly take their food with a better appetite if their keeper stays to distribute it, and see them eat it, than if he merely set it down and left them to help themselves.

We believe this to be the case with more domesticated animals than we are aware of, and appears natural enough if we remember how much more we enjoy a meal in the society of those we love and respect, than if we partook of it in indifferent or disagreeable company.

The turkeys then are hatched, and we are rearing them. Abundant food for the mother and the young, constant attention to their wants are the grand desiderata. An open glade in a grove, with long grass, and shrubs here and there, is the best possible location. The long grass will afford them cover from the birds of prey; the hen will drive off four-footed enemies with great courage. We have been amused with the fury with which a mother turkey has pursued a squirrel, till it took refuge in the branches overhead; what instinctive fear urged her we know not. Insects, too, will abound in such a situation. When the little creatures are three or four days old, they will watch each fly that alights on a neighboring flower, fix it with mesmeric intensity, and by slow approach often succeed in their final rush. But in the best position you can station them, forget them not for one hour in the day. If you do, the little turkeys will for a time loudly yelp, "O, then, remember me," in notes less melodious than those of a *prima donna*, and then they will be sulky and silent. When you at length bring their delayed meal, some will eat, some will not. Those that will not, can only be saved by a method at all other times unjustifiable—namely, cramming; but it must be done most gently. The soft crumb of bread rolled into miniature sausages, should be introduced till their crops are full. For drink, many would give ale or wine; we advise milk. The bird wants material, not stimulant. It has been actually wire-drawn. It has grown all the hours you have neglected it, without any thing to grow from. Like a young plant in the spring season, it will and must

grow; but has no roots in the fertile earth to obtain incessant nourishment. The roots which supply its growth are in the stomach, which it is your office to replenish. "Prevention is better than cure." Such a case ought never to occur in a well-cared for poultry yard.

The time when the turkey hen may be allowed full liberty with her brood, depends so much on season, situation, etc., that it must be left to the exercise of the keeper's judgment. A safe rule may be fixed at the season called "shooting the red," a "disease," as some writers call it—being about as much a disease as when the eldest son of the turkey's master or mistress shoots his beard. When young turkeys approach the size of a partridge, or before, the granular fleshy excrescences on the head and neck begin to appear; soon after, the whole plumage, particularly the tail-feathers, start into rapid growth, and the "disease" is only to be counteracted by liberal nourishment. If let loose at this time, they will obtain much by foraging, and still be thankful for all you can give them. And now is the time that turkeys begin to be troublesome and voracious. What else can be expected from a creature that is to grow from the size of a robin, to 12 or 14 lbs. in eight or nine months? The only way to keep them from rambling, is to feed them well and regularly at home.

C. N. BEMENT.

RYE FOR BRINGING LIGHT SOIL INTO CONDITION TO PRODUCE WHEAT.

EDS. GENESEE FARMER:—In a former volume of your excellent monthly text-book for farmers, the fact was alluded to, that for some years past, since the spirit of research and improvement (in a large degree due to LIEBIG'S discoveries and inculcations) in agriculture more generally set in, large tracts of light sandy land, some of it so light that it blows and drifts, in Silesia and contiguous districts in Germany, had been much improved by the growing and plowing in of successive crops of rye and lupins—the lupin being a leguminous plant, a small species of bean. It was shown, that by plowing in these crops in succession the *same season*, so much humus or vegetable mold was accumulated in the soil, that its color was changed from that of a light sand to that in appearance of a darkish loam, and its quality from that of a merely rye-growing sand to a soil producing fair crops and quality of wheat. Such, if my memory is correct, were the almost immediate results of this simple means of renovating sandy soils—means not costly, nor difficult, nor laborious, nor tedious of application, but so simple and easy of demonstration, as to be within the reach of every cultivator of a farm, however limited his means, or the extent of his possessions; a method of improving poor light soils, so accessible and economical, that not one of us need allege any other excuse but a want of will and perseverance, if hereafter we allow our light sandy soils to become unprofitable by reason of a deficiency of humus or vegetable mold in them.

But my object, at present, was to refer to a peculiarity of the rye plant—namely, its power of transforming silica or sand itself into its own growth and substance—i. e., that of its straw.

Rye straw is stiffer than the straw of either wheat or oats, as is shown by its much taller

growth, it being equally erect and more elastic than either oat or wheat straw. The greater extent of silicated surface in a crop of rye straw will probably be in excess of that of oats and wheat, for the same number of plants, in about the degree that rye straw is the taller or larger of the three. We cannot determine this with exactitude, nor is this necessary; for, though their composition is similar, wheat will not flourish on many soils, for which, in the same condition, rye does tolerably well. (It is to this fact that may, in part, be ascribed the settlement of Germans on much of the poorest and most sandy land in the West, as for instance the settlement of New Holland, Michigan, and the more extensive, though scattered one north of the For or Neenah river, Wisconsin. These plodding, industrious and eminently worthy citizens have been familiar with rye on sandy lands in Germany; and rye bread is their staple food in many instances—hence they can live on lands too poor to support costlier habits.) It is, however, a familiar fact that rye will flourish on soil too sandy, or deficient in vegetable mold to produce a crop, or half one even, of wheat. The question I wish to suggest is: To what peculiar power in the rye plant is this success due? When both plants grow on similar soil, there is no essential difference in their general composition apparent. But when rye flourishes where wheat will not, where the soil is too sandy, I have long thought such success due in a considerable degree to the power of the rye plant to dissolve silica in a greater degree than is true of wheat; because its composition, when grown, shows that it did dissolve, for it comprises more in its straw than wheat does.

One reason why wheat succeeds after the quantity of humus or vegetable matter has been increased, is undoubtedly to be found in the greater supply of ammonia or nitrogen, of which wheat requires a little more than rye, that is found as constituent of all vegetable matter in the soil. The substance of rye plowed in supplies this necessary to wheat. But this does not explain why rye will grow where wheat fails.

If, as I suspect, the success of rye is due to a peculiar power in dissolving silica more rapidly than is true of any of our other well known cultivated plants, then the inference suggests itself that rye is precisely the plant to *prepare silica*, and perhaps *other* minerals, for more delicately constituted plants, like wheat, oats and corn. There are certain elementary *forms* of mineral matter, which some plants have no power, even with the aid of the great transforming agent, oxygen, to modify or break up. This may be true as to wheat in relation to crude silica. Other plants differently constituted, in some peculiarity, have such a power. This may be true—and if it is not, I am mistaken—of rye in relation to crude silica.

Often, silica has been changed from its crude form by the rye plant, its original crude and, to wheat, unassimilable form, has been broken up and changed, and thus reduced to a *different* or *new* form with *new proportions* suitable for the nutrition and growth of wheat. We know that one animal can digest and assimilate substances that are impossible of digestion with another. And the succession of different species of plants on the

same soil proves something like this to be true of vegetables. If rye has this power, it may be turned to good account in bringing the crude mineral of sandy soils into a condition suitable for the nutrition and growth of wheat, which is of more general importance and value. J. W. CLARKE.

Wisconsin.

A USEFUL IMPLEMENT.

ALL farmers and gardeners have felt the necessity of some hand implement, to enable them to cultivate crops planted or sown in drills, from one to two feet apart, with less labor than that of using a common hand hoe. The cultivation of field crops of beets, onions, carrots, turnips, etc., in drills twelve to eighteen inches apart, by the use of the hoe alone, involves a good deal of time and expense, and if we can contrive, or invent any implement, with which we can do the work more effectually, and in less time, than can be done with the hoe, we should avail ourselves of it.

I am now making for my own use a couple of cheap *hand harrows*, to run between the rows of vegetables, as soon as up, and so frequently thereafter, that the weeds will be effectually kept down by it, except immediately in the rows, which may be pulled out rapidly by small boys, who can do little else.

To illustrate the use of this implement, I will take a field of carrots, sown in drills fifteen inches apart. The land should be free from stones, and large clumps of earth, where the seed is sown, as *all* lands should be, when sown to drill crops, and as soon as the carrots appear, let a drag be *pushed* through the rows, made as follows:

Take a hard wood plank, two inches thick, and one foot wide, from which cut off a piece eighteen inches long; then cut off one end with a broad ax, or a hatchet, so as to turn up, like the runner of a sled, so far as the thickness of the plank will admit. Into this plank drive spikes (40 penny nails) in rows, from one to two inches apart, till it is completely filled, up to the curve in front, which will leave the small ends of the nails protruding long enough to make an effective harrow on a small scale. On the back of this harrow, a little past the center towards the back end, attach a handle of suitable length, secured to an iron strap with two arms, coming to a union twelve or eighteen inches above the drag, where a shoulder should receive the handle, which should have a cross piece at the end to take hold of to make it complete.

The cultivation of the crops consists merely in pushing this drag before you, about once in two weeks, through the rows, a man going over an acre in two hours, leaving the thinning out and weeding on the line of the rows to boys.

I have learned that this system, differing merely by *drawing* instead of *pushing* the implement, has been practiced by an inventive "Yankee," with the most complete success; and if it be feasible, I shall avail myself of its advantages next season, and I hope that others will make a trial of it, since none of us are too old to learn. Different sizes will be required for different width of drills, and it remains to be shown, how near the width of the drills the drags, or rather *pushers*, can be made, and not cut up the crops.

T. B. MINER.

Clinton, N. Y.

CULTIVATION AND USE OF WILLOWS.

THE Transactions of the Highland and Agricultural Society of Scotland contains an essay on the above subject. It was awarded the gold medal of the Society. A few extracts will be read with interest.

The importance of willows to man has been recognised from the earliest ages. A crop of willows was considered so valuable in the time of Cato, that he ranks the willow field next in value to the vineyard or garden.

I need not enumerate the various purposes for which they are employed, but simply remark that the basket-maker, the turner and the cooper, would be less economical and useful were it not for the genus *Salix*. Charcoal and cases of lead pencils are also made from willow wood. Boards and planks of the willow are well fitted for scaffolding, and sheeting for carts, lofts, etc.; and in localities where small timber is scarce, we cut it up for paling rails. Being of a tough nature and light, it is very well adapted for these purposes. The very best kind of charcoal is made from willows, and is highly esteemed in the making of gunpowder. The bark is used for tanning several kinds of leather. So from this we may learn that the consumption of willows, if more extensively grown, might be greater; and plantations, or large beds of osiers might be very advantageously grown in almost any soil, such as banks of rivers, drained moors, etc., and, annually cut, would produce a sum of money that I have no doubt would largely remunerate the grower. And from land that can not otherwise be made available for tillage, notwithstanding the vicissitudes of seasons, taking good and bad under view, the writer has experimentally ascertained that an acre of willows or osiers will often bring the grower a larger sum of money than an acre of wheat; and likewise from land that would be almost useless for other crops.

It is rather astonishing that the growth of them is not more attended to both in England and Scotland.

As regards the nature of the soil and subsoil suitable for growing them in to the best perfection, osiers delight in banks of rivers or drained moors, and are greatly invigorated by occasional floods or irrigations. Plantations of them may also be formed, and will succeed well, on low spongy bottoms along the margins of streams.

In the great majority of farms will be found level, marshy, wet spots, which, by drainage, can not well be made available for tillage, which might be planted with the willow, and would afterward recompense the proprietor or farmer in a two-fold way. The land might be prepared in various ways for this crop, owing to the extent and nature of the soil. Where the land will admit of being plowed and harrowed, and has formerly undergone cultivation, I find that, at the present prices of willow sets or plants, and the expense of labor, it would not cost more than \$44 per acre, allowing the plants to be planted at a distance of 28 inches by 18 inches apart. But I find that for plantations of any considerable extent for osiers, the ground should be formed by the spade into beds of from 8 to 9 feet broad, with intervening furrows or narrow

ditches to carry off the water. The plantation may be made at any time between the fall of the leaf and an advanced period in spring; but the last two weeks of February and the first week of March are the most proper times for planting the willows. Cuttings 15 inches long should be taken with a knife on an upward slope from well ripened wood of either two or three years growth; experimental trial convinces me that they grow more luxuriantly when planted about two-thirds of their length in the ground, than when they are less deeply planted.

Having at one time about an acre of willows under my care, it all received the same preparation; but after the number of cuttings required were lopped off from the plants of second year's growth and dressed to the length of 15 inches, I caused the sets or cuttings of No. 1, or one-third part of the said acre, to be put in the soil to the depth of 10 inches. No. 2, as another third part of the same, had its cuttings planted to the depth of 7 inches. No. 3, another third part, planted to the depth of 4 inches. A decided difference was yearly to be seen in the growth of the plants—No. 1 producing in autumn of the third year one-fourth value of more willows than No. 2; and No. 2 equivalent, or nearly so, to the same value over No. 3. I can learn from frequent trials that, when depth of soil can be obtained, osiers succeed best in a deep, moist, free soil—ground dug to the depth of 24 inches, with a small quantity of dung and old lime rubbish put in the bottom of the trench.

The willow, for the use of the basket-maker, should be cut every year slopingly with the knife, within three buds of the point whence the shoot issued, and will admit of being cut back once in three years for the use of the cooper, exactly to the swell of the shoot of the three years growth—thus compressing the plant back to its ancient dwarf form, at the same time realising a handsome return.

Moreover, by treating osiers in this way, they will last and produce well for a great many years. The ground should be deeply stirred with the hoe and kept clear of weeds; but digging with a spade around the roots of willows often proves very hurtful to the fibrous feeders, as we often meet with a great portion of such oozing and growing very near the surface of the soil. Plantations of osiers thus treated, notwithstanding the vicissitudes of the seasons, will bring the grower at least the sum of \$60 for every year after they arrive at their full stage of growth. This sum of \$60 I have minutely tested, can be at the present time realized from an acre of willows, after all expenses of cleaning and cutting down the crop are deducted.

The way in which willows are most commonly disposed of after being cut is—they are sorted into trusses and tied into bundles of two and sometimes three feet in circumference; and if intended to be stripped of their bark, they are set on their thick end, immersed a few inches in standing water, and left there until the latter part of the following month of May.

It has of late been asserted by various respectable parties that as high a sum as from \$65 to \$70 of net profit, and sometimes more, could be derived at the present time from an acre of willows, under very ordinary treatment. They succeed best in

northern exposures, provided they are not over-topped. Should the ground be at all suitable for the crop, each set will produce the first year two good basket-rods, or 24,000—worth 12 cents per 100 or 120. The second year, the sets, being much stronger, will produce on an average six rods, one more or less being considered a very common number—one of which may be left on each stock for hoops, and the remaining 60,000 cut for baskets, which would be worth about \$120. By the third year there ought to be at least 12,000 hoops, worth \$1 per 100 or 120, and from 28,000 to 29,000 rods, worth at least \$67.

MAKING MAPLE SUGAR.

THE superior flavor of maple, and high prices of other sugar, will lead every one, this year, to tap the maples. Experience commends the following peculiarities in making maple sugar:

TAPPING THE TREES.—If small, boring with a bit from a quarter inch to an inch will injure trees less than gashing. It is not useful to tap very deep. Half an inch to an inch beyond the bark is sufficient. Tap high enough to have the bucket out of reach of animals.

BUCKETS.—If new ones are to be obtained, tin, round shape, of about ten or twelve quarts capacity, well wired at top, and made just slanting enough to pack into each other—with an ear soldered on or made by a loop in the wire to hang them to the tree—will be found cheapest and best—most cleanly and most durable in proportion to cost. Such cost, here, 30 cents each.

SPORTS.—Sheet iron (old refuse or scraps may be used) cut three or four inches long, and an inch and a half wide at one end, and an inch at the other—filed or ground sharp at the broad end, and then rounded by a blow when placed between a hollowed piece of hard wood and a rounded one to match—makes the cheapest and best spouts. Drive it into the bark with a hammer.

HOOKS.—Go to a smith shop and pick up the old nails taken from horse-shoes; straighten them; hammer the points flat; and, placing them edge-wise on the anvil with the head over the edge, or over the hole in it, draw the head to one side. Drive them into the tree below the spout sufficiently to support the bucket—and your tapping is done.

GATHERING.—A cask, with tunnel to fill by and faucet for emptying, and a sled, are the best implements, whether you use a team or hand labor for getting sap home.

BOILING APPARATUS.—Pans, made by thickly nailing sheet iron to plank for the sides, and turning up the iron for the ends, are cheapest and best. Set them over a mortar-laid arch a foot narrower (six inches on each side) than the pan—having a faucet at one corner of the pan to draw off the syrup. Have chimney sufficient to keep a flame under your pan. Have a regulating faucet to your sap reservoir, and let the pan be fed by a stream, that shall fill as fast as it evaporates.

SUGARING DOWN.—Use a kettle of iron or brass, with the bottom on the ground, and keep a quick and uniform fire around it till the sugar (or syrup, if you desire) is done. If you wish white sugar,

cook it only so as to grain; pour it into a bucket, and when it crusts over, tip it on edge to drain. The drippings will be good maple molasses. Cleanliness, most scrupulous, is the only direction we urge in the manufacture—leaving clarifying processes to be used, of course, as each one may find best by experience or common information.

CLOSING UP.—See that your buckets and pans are clean and dry. Spouts, ditto. Draw the hooks, not merely for future use, but to save your axes and saws if you ever use the tree.

Attica, N. Y.

†† L. S. ††

THE OLD AND THE NEW ORDER OF FARMING IN ENGLAND.

A "Practical Farmer"—one of the oldest correspondents of the London *Mark Lane Express*—furnishes that journal with an interesting sketch of the Old and New School farmers of England. We copy what he says of the Old School. The remainder will be given next month.

Take him in person: the burly personification of old honest "John Bull," in his holiday dress—his large broad-brim, full neckcloth, frilled shirt showing gaily from his capacious waistcoat, (not vest,) his nether garment—i. e. breeches—of buckskin, his long, straight, loosely-fitting coat, and heavy top-boots, all of the best materials, and made after the Sir Tatton Sykes type, and now, in good specimen, occasionally to be met with in Somersetshire. In his every-day dress he would have been found in his slop of blue and his stockings of grey, his chocolate tie, and his buckled shoes, disdaining gloves and gaiters. In his daily habits he would have been found to rise with the dawn in the summer, and long before it in the winter. He would breakfast at five, dine at twelve, sup at seven, and to bed at eight; his meals consisting of meat, bread, and beer, morning, noon, and night; occasionally joining his wife in a "cheery cup of tea," as a token of a kind and compassionate feeling for womanly weakness. His employments were not very complicated or numerous—business the same in fact and order as it had been for a century previous. His place was with his men, working with them, directing the operations, and merely taking upon himself the higher departments of labor. He would be seen in winter, in all weathers, at the earliest dawn, leaving the threshold with his "fork and fothering-band," making his way to "top twenty closed," where were located some half-score hardy steers, dependent upon him for their breakfast off the haystack, which invariably, from time immemorial, had been stacked in the precise corner most sheltered. From thence he would visit the sheep, helping them to a few bents of hay each, and an occasional bite of turnip, which now began to come into use amongst the improving farmers, who had heard of "Norfolk turnip-growing;" attention to, and superintending his stock being his especial department; the shepherd (a sort of supernumerary) working under his master—if, indeed, such an appendage was attached to the farm. His "shepherding" done, he saw to his thrashers, who, with flail in hand, were beating out the corn in his ample barn as best they could. His carters were winter-ploughing, or leading out the manure

so the mixen; his hedger was plashing and repairing the fences; his "pig-boy" attending to the swine, boiling the potatoes, and mixing the meal; and his dairy-maid milked her cows, and did the kitchen-work. His wife managed the house, the cooking, and her children. Nearly all was done "within themselves." There was neither thought nor enterprize in all their economy—as did their fathers, so did they.

In the summer, spring, and autumn the various duties were carried through in a similar way. The master taking the higher work, he was the seed-sower of the farm. With "hopper hanging to his shoulder," he sows the wheat, the barley, the oats, and the rye. The beans were mostly dibbled. Peas, as a crop, were scarcely known. In the summer he attended to his stock, worked with the weeders, superintended his men, took his place at the sheep-shearing, often joined them in mowing the grass, as in making and stacking the hay. In harvest-work he was first and foremost, as if the whole depended upon himself. He would be up with his reapers and mowers, and he would "pitch" or "stock" the corn. In fact, the common farmer of the days I speak of was a hard-working man. He was a model of industry; and he contrived, with strict economy, to "pick up a living" in a most homely and inexpensive way. The commercial, and what is now termed the "scientific" part of his business never troubled him a whit. True, driving his "cartee," and with his wife, he attended his usual market, to sell his corn, and she to sell her poultry, butter, and eggs; besides, "our fair" always found him behind his stand of cattle, or his pens of sheep, or his gelding or young horses; but here ended his commercial transactions. The main feature in his farming was, to have something to sell, nothing to buy. The purchase of seed for change, of artificial manure (then scarcely known) to aid his coleseed crop or the few turnips he cultivated (mangolds were then unknown) never entered his head. Nor did he care a rush to procure a better bull or a better ram. To him a bull was a bull, and a ram a ram, and that was all, provided they would get stock; and although the breeding of his horses was more commendable, yet it did not depend upon his forethought, but upon the general custom to travel entire horses of repute. The strides that have latterly been made in every department of modern agriculture were unknown to him. His lease was his text-book and guide; his account-book, the balance in his stackyard when all was paid—"That's mine!" My rent, tithe, taxes, rates, Christmas bills all paid—"That's mine," as he looks upon the standing stack; and that is, in fact, the balance of his last year's account (yes; and a balance which many a good modern farmer would have been glad to find during the past three years.) He never seriously thought how his farm could be made more productive by introducing new-fangled schemes of management, and new-fashioned implements, and new kinds of stock. He would have sooner thought a man doing this would probably lose his farm. His first inquiry would, likely enough, have been, "What would *Mr. Cox* or *his lordship* say? We shall all want new leases; and that means a raise of rent. No, I shall let things alone: I won't go first." Thus for ages was

the intellect of the farmers cramped and curbed, and their minds kept down to certain definite courses; and he was thought a daring, presumptuous man, who ventured to strike out a new path for himself. It can not be wondered at. The absence of knowledge and enterprise led to the adoption of every course in farming likely to save expense. Men did not travel as they do now. Learning was a difficulty of great magnitude. Where was a plain man to obtain knowledge? Now, everywhere it is to be found. The world teems with information. A man can not, if he would, be ignorant. It meets him at every point, at every turn. He must, in spite of himself, gain knowledge—yes, knowledge of the most useful kinds. But what was a man to do, fifty or sixty years since? He might hear of the Holkham Sheepshearing, or the Woburn Gatherings; but they were thought to be gentlemen's schemes, that could do the farmer no good; and so he sets himself to save and save. He must reduce his laborers' wages. He must not hire a servant for the whole year. It makes one pauper more; and that increases the poor's-rate. The taxes are heavy; and he must lay aside his "cartee," and his wife must mount the "pillion." The boys must come to work, and save schooling. The girls don't require any. Tom may manage the pigs, and do the boy's work, and Ben attend to all the little matters. The girls must help their mother; and the lass must have less wages, or leave.

HUNGARIAN GRASS.

I HAVE grown this grass for several years and find it a profitable crop. I sow a half a bushel of seed to the acre, about the 25th of May, but it may be sown as late as the 10th of June, and produce a good crop. But when sown the last of May, it is ready to cut before the dry, warm weather of summer is past, and is more easily cured than when sown later.

Three tons per acre is a fair average crop on good land. If it be left for the seed to ripen, it makes almost as good hay as when cut earlier. Indeed, the seed is mostly matured when the grass is ready to be mowed. Twenty to thirty bushels of seed are produced to the acre, worth \$1 per bushel to feed out to stock, either ground or whole.

It is supposed that this grass impoverishes the land very rapidly; but I am not fully prepared to endorse this opinion yet. I will, however, state a circumstance that occurred in my experience with it. I sowed a field of rich sod land, that had not been plowed for 40 years, nor since the timber was cut off that was growing upon it when first settled by immigrants, about the year 1800. The crop was enormous. The next year the same land was planted to corn, and the crop was almost a total failure, although the season was favorable to its growth. It is probable that the Hungarian grass draws such constituents from the soil as corn chiefly feeds on, to such an inordinate degree that a corn crop can scarcely be produced upon land where it has been grown, without an application of manure.

In regard to the alleged injury to stock, by feeding them on Hungarian grass, I will observe that I have not experienced any disadvantage at all in

feeding it to horses or cows; but from reading all, or nearly all, the statements that have appeared in the agricultural papers, during the past few years, in regard to this grass, I am led to consider that in some instances it has proved injurious to *horses*, but never to any other kind of live stock. This injury appears to have arisen from the very oily nature of the seed of this grass; and it being fed out generally without thrashing, horses eat abundantly of the seed ends, leaving the butts, and at the same time being fed freely on grain, they become weak and stiff in the joints; but exactly how this is effected, has not yet appeared. It has been recommended, therefore, not to feed grain very freely in connection with this grass, and I think the suggestion a good one.

For cows, and all stock to which hay is fed, the Hungarian grass is excellent. But the injurious effects arising from feeding it to horses are so rare, that it is not yet a *settled* point whether the injury complained of is really caused by this hay or something else; but time will soon decide the question.

I notice that Hungarian grass seed is selling at the West at about the price of oats, 25 or 30 cents a bushel, while it sells at the East much higher.

Clinton, N. Y.

T. B. MINER.

WHY DOES SHE KICK THE MILK OVER?—"Like a cow that gives a good mess of milk, and then kicks it all over," is the proverb that is applied to the man that does a kind act and follows it with a foolish or damaging misdeed. Proverbs are founded on practical truths. It is a truth, then, and a common one, that "a cow gives a good mess of milk, and then kicks it all over." If a fact, the proverb must be not merely a truth, but one founded in reason. So, if the cow stands quiet till "a good mess of milk" has been drawn, there must be a reason for her kicking it over afterwards. And, the reason for her kicking being withdrawn, the probability is that the kicking will either cease or not come in just after milking. Should any reader chance to own one of these *proverbial* cows, he may observe that the signal for that kick is the milker's allowing his fingers to slip from her teats with a jerk in stripping. If so, just cheat the old cow out of the signal, till the "good mess of milk" is beyond the reach of her kickers! —†† L. S. ††, Attica, N. Y.

MECHANICAL TOOLS FOR FARMERS.

No good farmer should be without a set of mechanical tools sufficient to enable him to do such repairing of his agricultural implements as any man can, and ought to do, rather than employ a professional mechanic.

In the first place, you require a room in some out-building in which to keep your tools, and to do your mechanical work. A work-bench, which any man can make in a few hours, is first to be erected, near a window. Over this bench, against the wall, place a shelf about a foot wide and 12 feet long, and under it put up a rack for your small tools, such as chisels, gimblets, brad awls, etc.

The following are among the principal tools needed: a handsaw, broadax, hatchet, two or three planes, hammers, chisels of various sizes, a half a dozen gimblets, an iron square, a carpenter's two-

feet rule, etc. Let all the tools be of the best make, and have a sufficient variety to enable you to do any small job that it is possible for any one to do, who is not a mechanic by trade.

Procure a large and various supply of nails and screws—wrought nails of different sizes, clout nails, brads, tacks of the larger sizes—and have them so arranged that you can lay your hand upon any kind in an instant. You will be surprised with what ease and skill, after a little practice, you will be able to "tinker" up your tools out of repair, and even to make new ones, during the winter season.

With a good set of tools, and all in complete order, when a door, lock, or anything else gets out of order on your premises, you will be able to repair it, in most cases, as well as any carpenter. In a few years one becomes so expert in the use of tools, that he feels able to go out to work to help his neighbors erect their houses or out-buildings, or to put up his own where no very nice work is required.

Next to an education at school, every farmer should instruct his sons in the use of tools; and no one will ever say that it was time spent in vain.

Clinton, N. Y.

T. B. MINER.

TEST OF THE VALUE OF MANURE.—HON. JOSIAH QUINCY, Jr., at the first Legislative Agricultural Meeting in Boston, remarking on cow manure, said the test of the value of her products, as well with manure as with milk, was *the quality of the food given her*. This is what we have always contended. "You can get nothing out of her," he well remarked, "which you do not put in. An Englishman will buy a bullock, keep him for a time for his manure, and then sell him for what he gave, or less. Mr. LAWES, of England, had made experiments in feeding cattle on cotton seed meal, and found that while a given quantity of voidings from the food was worth \$27,86, the same quantity produced from carrots and turnips was worth only 86 cents."

Neither of the above statements are strictly true. An English farmer does not buy a bullock and sell him, after feeding him for several months, at the price he gave for him or less. Such a statement is obviously erroneous. Again, a *given quantity* of manure made from the foods mentioned does not differ so much in value. What Mr. QUINCY means—and probably said—is that the manure from a ton of cotton-seed meal is worth \$27,86, while that from a ton of turnips is worth only 86 cents.

FROM all portions of the great West, intelligence brings favorable accounts of the growing wheat crop; and it is stated as a general fact that, at this season of the year, appearances for an abundant harvest were never more promising.



THE ASTER FAMILY.

No class of flowers can compare with the Aster for autumn flowering, and we depend upon it for our principal arden adornment during the fall. Fortunately it is of easy culture, perfectly hardy, and will thrive in any fair garden soil, and with ordinary treatment. No class of flowers has been improved so much within the last twenty years as this splendid genus, and none has advanced so rapidly in public favor. They are now as double as the chrysanthemum, or the finest dahlia, and almost as large and showy as the peony. Some of our readers, perhaps, who have been acquainted with only the old common sorts will be surprised at this statement, but we can assure them that a perfectly double aster more than four inches in diameter is no strange thing to those who are careful to obtain seeds of the new and choice varieties, and who afterward give them good culture. We give a brief description of a few of the best sorts, and also an engraving of a plant in flower.

DWARF PYRAMIDAL BOUQUET.—This variety well deserves its name, for the flowers are fine and perfect, and so numerous that the plant, when in blossom, has the appearance of a bouquet of flowers, the green leaves only just peeping through, as flowers and leaves are arranged in a bouquet by a tasteful florist. The usual height is about one foot.

PEONY FLOWERED.—A large, showy and beautiful flower. The petals are incurved, giving the blooms a globular form. Like the preceding, they present almost every variety of color. Plants from eighteen inches to two feet in height.

NEW CHRYSANTHEMUM FLOWERED.—This is a new and very desirable variety. The plants only grow about ten inches in height. The flowers are as large as Peony Flowered, and so numerous as to conceal the leaves entirely.

IMBRIQUE POMPONE.—Flowers rather small, round, the petals finely imbricated.

NEW CROWN OR TWO COLORED.—This is one of the most delicate and beautiful of Asters. Each flower is of two distinct colors, a few of the outside rows of petals being varmine, scarlet, violet, or blue, and the center a clear, transparent white.

LARGE ROSE FLOWERED, OR LA SUPERB.—This is a splendid variety, very large, of good form, and of the purest and brightest rose color. Flowers over four inches in diameter.

NEW GIANT EMPEROR.—This is the giant of the Asters—often five inches in diameter. The plants are peculiar in their habit, as exhibited in the engraving, erect, with

no side branches or blooms, and having usually five flowers, all of the same height. The old Emperor was only of one color—a dull lilac—but we now have fifteen different colors of the Giant Emperor. The following description of this splendid flower is by HENDERSON, the celebrated florist of London: "The Giant Emperor Asters are the most splendid flowers in Asters yet offered, whether regarded for effect, individual beauty, or competition. The well known lavender blue variety, introduced in 1858, is the model of the present section in each of the kinds now referred to, and which offer a complement of colors equal to a magnificent display of this favorite summer and autumn flower. The blossoms in each variety are of great size, double to the center, and of an even circular outline. Their corymbose style of growth produces similar table like clusters of flowers, and consequently show a greater expanse of bloom than any other section



GIANT EMPEROR ASTER PLANT IN FLOWER.

of the asters. The Giant Emperor is also admirably adapted for pot culture, but for medium or large beds, either in miscellaneous mixed colors, or in their respective harmonized tints by separate groups, it is incomparably the finest variety, whether individually or collectively considered, in its adaptation to the well furnished design of a villa garden, or the more extensive requirements attached to larger domains, in their broad acres of flowers, and massive belts of bloom for the late summer months."

The above will make a superb collection of varieties of this beautiful flower.

A METHOD OF UTILIZING SUBTERRANEAN FIRES.

M. NAUDIN, of the *Revue Horticole*, who has written a pamphlet on geothermal culture, mentions in one of the late numbers of that periodical, several instances of the successful use of natural subterranean fires. A correspondent from Wisserling says that this method of culture has been followed for many years in a village of Prussian Silesia, where the inhabitants take advantage of the spontaneous combustion of a coal mine to grow in the open air pineapples, remarkable for their perfection, and which are sent to the Vienna, Paris and London markets.

The establishment of Dr. E. A. GEITNER, a well-known chemist, at Planitz, near Zwickan, in Saxony, from its extent and successful operation, deserves something more than a passing notice. The land which now forms Dr. GEITNER's garden, was twenty years ago remarkable for its apparent infertility, yet in winter it was covered with a rich green turf, which formed a striking contrast to the surrounding fields white with snow. This phenomenon was caused by warm vapors which went out from numerous fissures in the earth, and which were caused by the burning of a thick seam of coal, situated sixty-five yards below the surface. This conflagration has endured from time immemorial—it goes back at least to the fifteenth century. At present it occupies a space four hundred yards in length and one hundred and twenty yards in width.

No one had thought of making this heat useful until Dr. GEITNER conceived the idea a few years since. After purchasing the land, he had a hot house erected, and under the borders in which he planted pine-apples, he conveyed the heated vapors from the crevices of the earth by means of conductors of mason work. Other plants were put in pots and arranged in the ordinary way. The experiment proved a complete success. A few years later the establishment passed into the hands of a son of Dr. GEITNER, a passionate horticultural amateur. Now it is composed of two conservatories and green-houses, besides a multitude of aquariums, or glazed basins, heated, and filled with aquatic plants. The Palm house is the king of the whole collection. No garden in the world, perhaps, has so many species of palms. And the various hot-houses which derive heat from the depths of the earth contain a collection very nearly complete, of every variety of exotic plant cultivated in Europe. This seems to be a very excellent proof that geothermal culture may be made very successful. Of course it would not be best to set fire to a coal mine in order to provide means of heating green-houses, but the possessors of ground warmed in that manner, may regard themselves as very fortunate.

The atmosphere which rests upon this heated earth must necessarily be very much elevated in temperature, but still be cooler than the earth itself, and this is the new principle which is involved in the theory of geothermal culture, the heat being produced by means of proper apparatus.

A LARGE PEAR.—A pear grown in California last season, and sent to the Secretary of the Kentucky Horticultural Society, weighed 2½ lbs.

THE APPLES OF NEW ENGLAND.

The apples of New England!
How hang their loaded boughs,
Over the grey stone fences
In reach of the dappled cows;
Oh! every red cheeked Baldwin
Hath a merry song to sing
Of some old moss roofed cottage
Where the farmer is a king.

Yes, king of his bursting acres,
Whose grain takes a thousand hues
In the wonder-tinted sunshine—
Yes, king in his cobble shoes;
King of the sturdy plow share;
King of the sickle keen;
King over God's full meadows,
Budding in white and green.

The Russets of New England!
What ruddy fires they see,
Where the crack of the viny walnut
And the crack of the pine agree;
Where the herbs hang high in the chimney,
And the cat purrs on the hearth,
And the rollicking boys guess riddles,
With many a shout of mirth.

Oh! the Greenings of New England!
Of the old Rhode Island stock—
Brought from the English gardens
To grace the land of rock;
As fair as Britain's daughters,
As hardy as her men;
But fairer lads and lasses
Have plucked their fruit since then.

Oh! the Pearmain of New England!
With its blended milk and rose,
There's a smell of Albion's orchards
Wherever the good tree grows;
A stout old Pilgrim* brought it,
And to cradle its seed he broke
The sacred soil of Hartford,
By the roots of the Charter Oak.

Oh! the Pippins of New England!
What lover's smiles they see,
When their yellow coats in letters
Tell tales at the apple-bee;
What rosy cheeks at quiltings!
What kisses in husking time!
That soon lead off to the parson,
Or end in a wedding chime.

Oh! the apples of New England!
They are famous in every land!
And they sleep in silver baskets,
Or blush in a jewelled band;
They swell in delicious dreaming
On a beautiful, crimson lip,
And taste of the nectared blisses
No lover has dared to sip.

They go to the southern islands,
They go to the western wild,
And they tell of their glorious birth-place,
To every flocking child;
Of the home where men are noble,
And woman as good as fair;
Oh! the apples of New England,
They are welcome everywhere!

MRS. M. A. DENNISON.

* Governor GEORGE WYLLYS, of the old "Wyllys place" in Hartford, since made famous as the grounds where grew the Charter Oak. WYLLYS brought that Pearmain tree from England in 1688—two hundred and twenty-three years ago, or nearly back to the time of SHAKESPEARE—and the original tree itself is yet standing on the spot where the old Pilgrim planted it, a little way south of the house. The new streets, and other "improvements" in those historic grounds, have spared the Wyllys Pearmain Tree, which still flourishes at the green old age of nearly two and a half centuries, and still bears its annual fruit. It is doubtless the oldest known apple tree in America, and one of the three oldest fruit trees—the Stuyvesant Pear Tree in New York, and another in Salem, Mass., being about as old. New branches have sprung from the failing old trunk, and these bear fruit. Probably no other spot of ground in the world can boast of two such historic trees as these which together grew green on each succeeding spring, for more than two centuries.

STRAWBERRY CONVENTION.

WHAT STRAWBERRY IS THE BEST?

One of your correspondents asks the above question. It is easier to answer than to satisfy the many querists at we are right; for there are so many things to be taken into account, that a berry suited to one person's land and soil, would be unsuited to another's. To one who raises for market, it is essential to select such a variety as will yield a surplus of one hundred or more per cent. on its cost of cultivation. To the amateur, the cost is not so much an object as the size, beauty and flavor of the berry. At this time, when over one hundred different varieties of strawberries are grown under distinct names, each one of which has its claimant for superiority, the difficulty of selection is more than at first supposed; for when we have named *Triomphe de Gand*, because of its size, beauty and delicious flavor,

WILSON'S ALBANY

steps in, and says, "Pooh! I produce two quarts of berries to that lady's one; and if my berries are not quite so highly polished, or so sweet, yet they sell nearly as well, and the quantity is so much greater that my owner fully satisfied of my value." Now, up jumps

HOOKER'S SEEDLING:

And may it please you, my good friends, who have just spoken, have told but the truth; and all very well, I presume, for the kind of society with which they have to deal; but I belong to a higher grade, and although I can not endure jolting rides, yet when I am carefully gathered and placed upon the tables of the judges, I find everybody calls on me again and again, and each time with such a peculiar twinge of the mouth, that I am led to believe they appreciate my delicacy above all others. Again, I am not niggardly in yielding; to those who care well for me, I am bounteous in return; but I can not bear neglect in any body."

THE "DOWNER"

Here steps forward, and says: "Although originating in this State where now there is more or less of disloyalty, I am true to all the interests of the North; require no petting or extra care to keep me fresh and vigorous, and am disposed to yield a large and bright fruit, of a fine flavor, of quite equal to my friends, *Triomphe de Gand*, or the best speaker here, so firm that transportation, even over long distances, does not injure my looks. My numbers, also, are nearly as great as my friend 'Wilson.'" As the "Downer" sits down,

LONGWORTH'S PROLIFIC.

Arises and addresses the meeting much as follows: "Although not having received the hundred dollar premium by a noted society of pomologists, yet I may say without egotism that it is conceded by all who have had my acquaintance two or more years, that to me, rather than *McAcroy's Superior*, should the award have been given; for I am not so easily affected by changes of climate. I produce more berries, and they are equally as large and of as good color; and although they are not quite as delicate and aromatic, yet their firmness and sprightliness are such that I am generally preferred when berries are sought to be grown for market, or for the purpose of sugaring for dessert. Again, I find myself much liked for canning."

JENNY LIND,

Of the singer, but the strawberry with that world-renowned name, next modestly remarks that "she could not boast especially of size, modesty, if sought else, would forbid; yet she could claim, with all due deference, that she is an early riser, and for early maturity and promptness few can excel her; and her firmness and sprightliness are qualities she had never heard controverted. She felt, therefore, that although she did not wish especially to press the matter, yet any gentleman would find his domestic garden sadly deficient without her presence."

THE OLD EARLY SCARLET

Here popped up in high dudgeon. "She had been for many years the first to show her ruddy cheek at the season people began to look for the visits of strawberries, and now to have her claims disputed by a foreign named lady, was too bad; although she must in justice acknowledge that lady had not overrated her merits. She, how-

ever, desired her listeners to think twice before leaving her behind. They would find her berries abundant and of delicious flavor, although she could not boast of size; but she had always performed two offices, viz.: that of bearing her own burden, and at the same time assisted Mistress Hovey, and others of her class, to perfect their works." As the "Early Scarlet" concluded,

HOVEY'S SEEDLING

arose and said, "she had now been over twenty years before the public, and although she had almost invariably reigned supreme at all exhibitions, and generally was ranked highest on the market grounds, yet she had the effrontery to say she was unwilling to yield the chaplet of honor to any of those with whom she was acquainted, and her list of acquaintances counted up something over one hundred names. She would say that for sprightliness some of her rivals outshone her, while others had more aromatic delicacy; but when all the qualities were combined that were requisite to form a good strawberry, she thought ere any one discarded her, they would look the matter over very carefully. She said she loved good care and good feed, as who should not; but no one ever yet complained of her when they had treated her liberally to such items as strawberries ought always to have."

THE PYRAMIDAL CHILIAN

Here begged leave to remark, that "she noticed a great many of her associates standing with open mouths, ready to speak, and as she knew they could not all have time to tell their neighbors' faults, much less get through with their own praises, she would move an adjournment; but before all had gone, she should say it was her character to be a little retiring; and while her associates were ruddy with fruit, she only exhibited her blossoms; but after her friends had exhausted their stores, she exerted herself, and she believed with great success, to prevent too great a depression among their lovers, by supplying their wants until some other variety of fruit came naturally into use."

TROLLOPE'S VICTORIA

Here jumped up, and said that "before the meeting adjourned, she would like to ask some friend to grow her along side of *Methven Scarlet* another season, and report how far she excelled that once highly reputed berry."

The *Western Queen*, *Fillmore*, *Bartlett*, *Dundee*, and many others whose names are prominent before the world, each and all attempted to speak, but the Editor of the *Farmer* remarked that his printer was calling for copy, and they must excuse him from reporting any further remarks this week, but if his correspondent was not satisfied with what had now been said, he would, at a future time, listen to and print the modest laudations of all the others.—E., in *Ohio Farmer*.

THE PROFITS OF FRUIT GROWING.—The Rochester

Union says: "There is no question but that fruit growing has been a source of great profit to farmers of Western New York within the past fifteen years, and strange as it may seem, the business improves as the number of growers increases. An instance of the advantage of fruit growing is related by the *Orleans American*. A lady in the town of Gaines bought, eight years ago, eight acres of old, worn out land, at less than \$40 per acre, cropped it two years; then in November—six years last November—set it out to orchard, at an expense of less than \$200; has cropped it every year since, and realized an annual revenue of over \$200, over and above expenses. She recently declined an offer of \$2,500 for the field—will not sell for less than \$3,000. There is no building or other improvement on the land except those mentioned."

A PROLIFIC PEAR TREE.—The *Boston Cultivator* says:

"W. R. PRESTON, of Portsmouth, N. H., has a pear tree that for eight successive years has bloomed and fruited three times a year. On October last, a pear of the first weighed 14 ozs., the 2d 4 ozs., the 3d 1 oz.

ROSES.

WELL, what can be said, new, about roses? Nothing, reader; and, therefore, in the outset we disclaim any pretensions to novelty in presenting these remarks to your notice. The rose has been handled by writers of every grade, in all times, and every part dissected and analyzed. One talks of its leaves, and another of its petals, its buds, its flowers in every stage of development, and praises

the wild rose bud is just as it has come to us from its Maker its beauty is yet excelled by the gentle, nursing care of art. This whole great natural order, Rosaceæ, would seem to have been created expressly for the encouragement of horticulture. Nearly every member of it has habits so pliable as to enable it to be moulded almost at the pleasure of the human will; and in this family of plants horticulture has achieved her most brilliant triumphs. Contrast, for example, the "best" apples and

pears of our orchards with the wild crab and the choke pear, and the cherry, the plum, the peach, the apricot, and the nectarine, with their representatives in a state of nature, or yet a full blown *La Reine*, *Geant des batailles*, or *Gen. Jacqueminot*, with its little wilding relative, pretty, but so poor, beside its rich and high bred cousin, as almost to make one's heart groan with pity.

The bud, no less than the flower and the fruit, changes its form under culture; and thus, instead of one, it exhibits an endless variety of shapes. This change takes place especially in the sepals of the calyx, which are expanded into an infinite variety of beautiful forms. The sepals, in some cases, assume the form of perfect leaves, and from this extreme of development, they vary through every conceivable degree to the simple sepal. To describe these ever changing forms would be impossible, and we can give no better idea of the effect they produce, than by referring to the annexed engravings.

The beauty of this leafy calyx is not even confined to the bud, for when the flower is full blown, it forms a rich green back ground, coming up to the flower closer than the leaves, and by contrast greatly enhancing the effect of the whole.

Leafy calyxes are found in many varieties of the hybrid perpetuals, and of such that exhibit this peculiarity we shall particularize only a few sorts first rate in every respect.

Besides *Lion des Combats* and *Gen. De Brea*, shown here, we will mention *Marquis de Bocella*, *Olivier de Serres*, *Comte de Derby*, *Gen. Jacqueminot*, *Caroline de Sausal*, *Poniatowski*, *Charles Boissiere*, and *Duchess of Sutherland*.

In connection with this subject, we here take occasion to specify a few more varieties of the best hybrid perpetual roses, which should be found in every good collection:

Adele Meange—A large, full, double rose, rose color, tinged with lilac; it blooms in clusters in great profusion, and is a very desirable sort.



LION DES COMBATS ROSE.

have even been sung to its thorns. But the subject is always new. "As sweet as a rose," "as beautiful as a rose," "as perfect as a rose," are continually falling upon our ears, and convey to our minds the highest images of perfection the imagination is able to conceive.

The rose bud is particularly admired; the whole class of moss roses is cultivated especially for the buds; but a rose bud of any kind is beautiful. We know little of the mathematical properties of Hogarth's "line of beauty;" but if it does not exist in a perfect rose bud, we fear that the great artist has made some fatal error. Beautiful as

Auguste Mie—One of the best; bright rosy scarlet, large full, vigorous habit, and profuse bloomer.

Arion Prevost—An indispensable sort; very large and full; a very strong grower, and great bloomer.

Caroline Langelier—A dwarf-growing sort; flowers single and double, bright lively crimson chateaubriand; valuable for its peculiarly soft, delicate rose color; its flowers are best when half expanded.

Charles Amal—A dwarf-grower; flowers medium size, very bright crimson, almost equal in color to Geant des batailles, but more vigorous than that variety.

Charles Marx—Very large and full; flowers of a carmine; a vigorous grower and a free bloomer, and altogether one of the best.

Edward Jesse—A large, full and beautiful rose; very vigorous grower and a free bloomer.

Geant des Batailles—No rose has been more popular in this country than this, and it well deserves its name; it is of medium size, but quite valuable, of a bright, glowing crimson, most dazzling; a very free bloomer, a good grower.

La Reine—Very large, double, rosy; splendid; a vigorous grower, a free bloomer.

Enfant du Mont Carmel—A very fast and strong grower, and the most profuse bloomer known; very large and double; deep purplish red.

Lord Raglan—This is the most brilliant crimson of all roses, and leaves are more to be hoped for in point of color; the plant is moderately vigorous, but appears to be a comparatively shy bloomer; a single flower, however, is worth a season's culture.

Adam Laffay—Bright, rosy crimson; large and double; a strong grower and free bloomer.

Mrs. Elliott—Very large and double; flowers of a purple; a strong grower, and one of the most profuse bloomers.

Charles IX.—Very large and full; bright, purplish red; a very vigorous grower, and free bloomer.

Didon—Large and full; bluish rose dwarf habit; vigorous and profuse bloomer; if profusion of bloom can be excess, it is so in this variety, and in L'Enfant du Mont Carmel.

Couvenir de Levison Gower—Very large and full; bright red crimson; a strong grower, and free bloomer.

Edm. Jesse—Large and double; bright, rosy crimson; vigorous habit, and free bloomer.

OSAGE ORANGE HEDGE A FAILURE, AND WHY.

On traveling a distance of sixty miles, recently, I noticed the twenty-five or thirty attempts at raising Osage hedges: all but two, judging from appearances, have been ready, or soon will be abandoned as failures. Two, with the addition of an occasional stake in the more open places, are considered a sufficient barrier to turn stock,

and those are quite narrow and thin at the base, but much broader and thicker at the top; in fact, wrong end up as regards form, in the opinion of those competent to judge in such cases. In attempting to grow an Osage Orange hedge, two points of the greatest importance are almost always overlooked, viz.: thorough cultivation and proper pruning. I look upon hedging the same as on any other branch of business; to be successful, you must be thorough, and unless you are, you may as well give up first as last. Cultivate and prune properly, and if you don't get a fence in three or four years that suits, don't give up, but persevere one, two, or three years longer, as may be necessary, and if you commence aright, you will have a fence that is just the thing, both useful and ornamental—that will stop man or beast. Now, don't go and



GENERAL DE BREA ROSE.

stick your hedge down on the north side of, and within less than a foot of a boarded fence, as I have seen in more than one instance, nor close to any other fence, but give it plenty of room. What would you think of a man that wished to fat a bullock, and instead of feeding it eight or ten quarts of meal a day for five or six months, as many of our cattle feeders do, would give three or four quarts a day for about half that time, and because it did not get fat and sleek, would turn out, quit feeding, and condemn the whole system? Yet it is just so with nineteen-twentieths who attempt to grow Osage hedges. Instead of cultivating a strip of land eight or ten feet wide, for five or six years, as they should, they about half cultivate a strip three or four feet wide, two or three years, and perhaps do not prune at all, and because it does not make a substantial fence in that time, they look upon it all as moonshine, only fit for amateurs to bother their brains with. Is it to be wondered at, that with them hedging is a failure?—R. F. BINGHAM, in *Ohio Farmer*.

Ladies' Department.

ORIGINAL DOMESTIC RECEIPTS.

Contributed to the Genesee Farmer.

TO RESTORE BLACK CRAPE VEILS.—Hold the crape over boiling water until it becomes damp with the steam, and then pin it down evenly upon a carpet, and it will become stiff, and when dry, will have the appearance of new crape.

FROZEN EGGS.—MRS. SOPHIA DAMON says that frozen eggs can be restored, by putting them into cold water, and placing them on the stove, where they will warm gradually. If used immediately, will be as good as any eggs.

PULVERIZED BORAX.—A lady correspondent says she wishes to recommend this article as invaluable for a lady's toilette. It is an excellent dentifrice; it removes all stains from the hands; it cleanses the hair from dandruff, and is particularly good for washing muslins and laces.

CYANIDE OF POTASSIUM.—This article will be found infallible in removing stains from any kind of white cloth. A distinguished chemist in the city of New York says that he has never found any stains that can not be removed by its application. Cover a small quantity of it with tepid water, and apply it to the stain immediately. It will even remove indelible ink.

SOYER, the great French cook, says that cookery has been thought beneath the attention of men of science; and yet, was there ever a political, commercial, or even a domestic event, but what always has been, and always will be celebrated either by a banquet or a dinner? Nothing, he says, more disposes the heart to amicable feeling and friendly transactions, than a dinner well conceived and artistically prepared. In ancient times, a cook, especially if a man, was looked upon as a distinguished member of society; and there are a few still in the high circles who highly appreciate the knowledge he possesses, and have classified cookery as a high art. One of the greatest chemists of the day (LIEBIG) pays the highest eulogium to culinary science. SOYER considers it worthy the attention of a peer of the realm, and that the morals of the country greatly depend on the production and preparation of its food. If this be so, it is surely worthy the attention of the women of this country who are housekeepers, to make it a matter of the deepest interest to attend to the preparation of food for their families. It is said of many who have resided for a time or traveled in France, that a real French dinner, consisting often of seven courses, is so perfectly prepared and seasoned, and such an adaptation in its variety to the digestive organs, that no one would feel that he had eat too much, although he had taken something from each course, and that the most inveterate dyspeptic could eat a French dinner with impunity. If culinary science can be carried to such perfection, surely cookery *should* be ranked among the fine arts.

"To be pleased with one's self, is the surest way of offending everybody else."

FASHIONS FOR LADIES' DRESS.—The present fashion for ladies' dress is really sensible. The high, thin boots, linsey-woolsey dresses and grey sacques for the streets, which are now in vogue among fashionable city ladies, are just what is needed in the country. The ladies are now adopting the habits of street dress of high-bred English ladies, and a great improvement it is upon the customs in this country for many years. Now, ladies who dress fashionably are warmly clad when exposed to the weather, instead of the flaunting, showy style formerly worn by young ladies, when they could never be warm unless, as their mothers would say, "Pride kept the warm."

The latest Paris fashions for bonnets for full dress are of a rose color, or blue uncut velvet, trimmed on the top and the front with flowers or feathers of the same color. The front is quite large and high at the top, but very close and snug at the sides of the face. The strings of the same color with the hat, broad and long, and tied with quite large, prominent bows under the chin.

A veil composed of both black and white blonde lace is much worn, and particularly admired.

The fashions for dresses remain almost unchanged. Grave colors are worn for fashionable visits, even by young ladies; and the principal charm of the present fashion is, that each lady can adopt the mode of dress most fitted to her style of face or figure, and still be dressed fashionably—for every style is worn.

Zouave jackets and short sacques, pointed waists, and waists with belts and clasps, high-necked waists for wedding dresses, and low-necked for young ladies. Black silk and velvet wadded sacques are much worn again, and short, circular cloaks, trimmed with a broad floun

WASHINGTON IRVING ON WOMAN'S LOVE.—"It is a common theory to laugh at all love stories, and to treat the tales of romantic passion as mere fictions of poets and novelists, that never existed in real life. My observations on human nature have convinced me of the contrary, and have satisfied me that, however the surface of the character may be chilled and frozen by the cares of the world and the pleasures of society, still there is a warm current of affection running through the depths of the cold heart, that prevents its being congealed. Indeed, I am a true believer in the blind deity, and go to the full extent of his doctrine. Shall I confess it? I believe in broken hearts, and the possibility of dying of disappointed love. I do not, however, consider it a malady often fatal to a woman's sex, but I firmly believe it withers down many a lovely woman into an early grave. Man is the creature of interest and ambition. His nature leads him forward into the struggle and battle of the world. Love is but the embellishment of his early life, or a song piped in the intervals of the acts. But a woman's whole life is a history of the affections. The heart is her world; she embarks her whole soul in the traffic of affection; and if she is wrecked, her case is hopeless, for it is a bankruptcy of the heart."

"EXPECT no constancy from fickle Fortune, for the ancient dame has been the wife of many a thousand bridegrooms."

Miscellaneous.

DESCENT OF THE EAGLE.—In *Forest Creatures*, by CHAS. WILMOT, we have an account of the remarkable power possessed by the eagle of instantaneously arresting him while dropping through the air at a certain spot, with spread wings, even when descending from a height of over 4,000 feet. "When circling so high up that he is but as a dot, he will suddenly close both wings, falling like an aerolite, pass through the intervening air in a few seconds of time. With a burst, his broad wings are again unfolded; his downward progress is arrested, and he sweeps away horizontally, smoothly, and without effort. He has been seen to do this when carrying a sheep of twenty-six pounds weight in his talons; from so giddy a height that both the eagle and his prey were not larger than a sparrow. It was directly in front of a wall of rock in which the eyrie was built; and the speck in the clouds was being examined, and the bird was entertained as to the possibility of its being the prey, down he came headlong, every instant increasing in size, when, in passing the precipice, out flew his mighty wings; the sheep was flung into the nest, and on the magnificent creature moved, calmly and unflurried, as a bark gently down the stream of a river."

ELEPHANTINE ACTOR.—SIR EMERSON TENNET, in his *Natural History of Ceylon*, says the elephant occasionally loses his death in order to regain his freedom. Of a recent case he writes: "It was led from the corral as usual between two tame ones, and had already proceeded far towards its destination, when, night closing in, and the lights being lighted, it refused to go on, and finally sank to the ground apparently lifeless. Mr. CRIPPS ordered the elephant to be removed from its legs, and when all attempts to raise it had failed, so convinced was he that it was dead, that he ordered the ropes to be taken off and the carcass abandoned. While this was being done, he was accompanied by a gentleman by whom he was accompanied leaned against the body to rest. They had scarcely taken their seats and proceeded a few yards, when to their surprise the elephant rose with the utmost alacrity, and fled towards the jungle, screaming at the top of its voice, its cries being audible long after it had disappeared into the shades of the forest."

THE TRAVELER'S READY WIT.—A traveler in Ireland having been asked to deny that the peasantry were humorous, was asked to ask any question of the first laboring man he met on the road. Accordingly, on seeing a sturdy fellow carrying stones, he says, "Now, my man, if the devil is to come here just now, whether would he take you for a peasant?" "Me, to be sure," says the man, "for he's certain of your honor at any time."

A DISTINGUISHED CHARACTER once called on Sir EARDLY WILMOT, and related to him the particulars of a serious injury he had received from a person high in the political world. When he had told his story, he asked WILMOT if he could not be *manly* to resent the injury. "Yes, Sir," said the Judge; "it would be *manly* to resent it; but it would be *God-like* to forgive it."

SOCIETY FOR THE PREVENTION OF CRUELTY TO HUSBANDS.—In cold winter, when a horse's bit is full of frost, never put it (we are told) into his mouth without previously warming it. You should not treat your husband with less kindness than you would your horse. Therefore, during the winter, put none but warm bits into the dear creature's mouth. Not to do so is very cruel, as it is very well known that the husband's mouth is much more sensitive in cold weather than at any other period of the year. It only makes him restless, snappish, and spoils his temper, so much so that it is almost dangerous at times to go near him. Hence, whatever you do, avoid cold mutton.—*Punch*.

GOOD FOR EVERYBODY.—Marryin' is a good thing, it is a grate thing, as Aunt Jane ses; a grate institution (how she noes I can not tell, for she never had a chance to try;) it's good for everybody. Are you old?—marry, it'll make you young (or you'll die trying to 'pear so.) Are you young?—it'll make you old. In fact, it is sooted to ev'ry body and ennybody. It's a briar-rose hedge that society has set up to keep folks inside the bounds of good behavior; and tho' I've had ups and downs in it, and no all about it, still, I say, hooray for marryin'! It's good for everybody.

THE DUKE OF NORFOLK had a fancy for owls, of which he kept several. He called one, from its resemblance to the Chancellor, "Lord Thurlow." The Duke's Solicitor was once in conversation with his Grace, when, to his surprise, the owl-keeper came up and said, "Please you, my Lord, 'Lord Thurlow's' laid an egg."

A FAMILIAR ILLUSTRATION.—A medical student, under examination, being asked the different effects of heat and cold, replied: "Heat expands, and cold contracts." "Quite right; can you give an example?" "Yes, Sir. In summer, which is hot, the days are longer; but in winter, which is cold, the days are shorter."

A CELEBRATED BARRISTER, retired from practice, was one day asked his sincere opinion of the law. "Why, the fact is," rejoined he, "if any man was to claim the coat upon my back, and threaten my refusal with a law-suit, he should certainly have it—lest, in defending my coat, I should lose my waistcoat also."

A NICE DISTINCTION.—REV. T. STARR KING, an Universalist preacher to an Unitarian congregation, lately defined the difference between the two bodies to be this: "The Universalists hold that God is too good to damn them; and the Unitarians hold that they are too good to be damned by Him."

NOTHING LIKE TRYING.—FREDERICK the Great asked an Englishman whether one hundred of English guardsmen could beat the same number of Prussian. "Upon my word, I don't know," said the Englishman; "but fifty would try!"

CAUGHT A TARTER.—Young Snobby insulted a "Friend" one day by accosting him thus: "Well, Broadbrim, are you much of a *Shaker*?" "Nay, not much; but I can do a little in that way." So he seized Snobby by the collar, and nearly shook him out of his boots.



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TO OUR FRIENDS.—On the last page of this number of the *Genesee Farmer* will be found a remarkable list of Premiums to all who send us the names of subscribers, old or new, for this year. Never were more liberal Premiums offered. These Premiums are offered to all. There is not one of our readers who can not send us from one to a dozen subscribers, by simply speaking to their friends and neighbors, and asking them to subscribe. The *Farmer* is so cheap that no one can object to take it on account of the hard times. The back numbers from January will be sent in all cases.

NOTES ON THE WEATHER FROM JANUARY 15TH TO FEBRUARY 15TH, 1862.—The weather continued pleasant the end of January. The snow, hail and rain of the 15 prepared us for good sleighing on the 16th, which continued through the last half. For snow fell often in small quantity so as to compensate for a little melting and mud wearing out of paths.

The temperature of the last half exceeds the average by near 2°, being 26.5°; and of the whole month was nearly one degree below the average, being 24.7°. The lowest was one degree on January 5, and 6° on the 14th and the lowest in the last half was 11° on the 16th and 27th, while 41° was the highest on the 29th, and the highest mean, 38°, was on the same day.

The quantity of water in the month was 3.51 inches.

The great storm of the month began on the 24th on the coast of North Carolina from the N. E., and moved northwards, reaching New York at 9 p. m., and extending in snow and rain and wind over much of the 25th; began Boston late on the 24th, and gave much snow and rain the 25th; and began in Belfast, Maine, at 10½ a. m. on the 25th. Of course, the change of wind to the west followed the same regular course, being at New York on the 25th p. m., and extending to the north. The railroads were blocked up by snow on the Hudson, from the Highlands northwards, and over Vermont and west of New England. The storm did not reach west of the Allegheny Mountains, in New York, though 3 or 4 inches of snow the vicinity of Rochester and more further east without any considerable wind. In this storm, the Rev. H. C. Dwight, Missionary at Constantinople, and on a visit to this country, was instantly killed by the overturning the car at 9½ a. m., a few miles north of Bennington, Vt. on its route northwards, by the great violence of the E. wind on the 25th. There was a heavy gale on Chesapeake Bay, and along the coast, and the tide was very high in New York on the 25th, as well as at Boston.

At Washington, and on the Potomac, the weather was unpleasant for the month; at Philadelphia also; at New York, and west into New Jersey; but in this vicinity, at least even west of this State, the weather has been pleasant ever, with moderate temperature, and we have on the ground a foot or more of snow and ice.

February has so far been pleasant, slight thawing snow once or twice, with enough of snow to continue sleighing very good. Two or three inches of snow fell in the last few days. The highest temperature was 4° on the 6th, and the lowest was 11° on the 14th, 18° on the 2d and 3d and 5th, and only 14° on the 10th and 11th. The good sleighing, with slight drifting, has made both business and pleasure easy. The mean heat was 24.8° or 1.4° below the average for 25 years. The range of the average for this half of February in a few years, has been from 15.9° in 1856, to 29.1° in 1857. The cold has not yet been down to zero this winter.

A GREAT FRUIT YEAR.—The winter has been highly favorable for fruit trees in this section. The buds are safe, and the prospects now are that we shall have a remarkably productive year. The fine weather last fall ripened the wood perfectly; the failure of the fruit last season imparted increased vigor to the trees, and everything is favorable for an immense crop.

AGRICULTURAL ITEMS.—France, Ireland, Italy and Portugal still want grain, and the *Mark Lane Express* says "It will be well if the producing countries of Europe, as well as America, can meet the heavy demands certain to be made."

In the new Museum in Kew Gardens, England, there is a specimen of cotton, 800 hanks, weighing only a pound; spun so fine, they measure more than 500,000 yards, or 250 miles in length.

The last crop of English grown clover seed is of poor quality, and the yield was not good.

A "gentleman of veracity" asserts that he saw a horse's nose frozen in, while drinking at a trough, at Portland, Maine, a few days ago.

The wheat crop in England looks favorable. The plants were never better.

DALLAS, in his *Animal Kingdom*, tells us that he was informed by a Scottish minister that on his first going to his parish in Morayshire, he had seen a cow, a sow, and two young horses yoked together, and drawing a plough in a light, sandy soil, and that the sow was the best drawer of the four.

The Artificial Cattle Foods, which are so extensively advertised in England, are universally denounced by the scientific men. They are worth only about one-fourth what is charged for them.

The *Courier* of Odessa states that that town and the surrounding district have had a general invasion made on them by mice, and the cats have become so fat with the number they have eaten, that they are no longer capable of performing their duty.

M. BOUSSINGAULT, the great experimental farmer and chemist, has been chosen Vice President of the Central Agricultural Society of France.

Great efforts are being made to repeal the hop duty in England.

E. CORNELL, of Tompkins Co., has been elected President of the New York State Agricultural Society, for 1862. A better man could not have been chosen.

RESTORING A WORN OUT FARM.—H. J. COLLINS, Esq., of Collinsville, Ct., writes us that he raised last year 70 bushels of shelled corn per acre, all sound, from land which a few years ago would not keep a cow alive. He soils his cattle in summer, and feeds them in winter on steamed corn-stalks, with oil-cake meal, bran, etc. He composts his manure with muck, and saves all the liquid from the house, etc. This system enabled him to keep 30 head of cattle on a farm that formerly would keep only 6 or 8 head. He makes 750 loads of manure a year, and expects soon to make 1,000. He adds: "I take all the best agricultural papers, and the *Genesee Farmer* is a little the best one of all. The *Albany Cultivator* comes next, and close on your heels. You will not consider this faint praise." We certainly do not.

THE RURAL ANNUAL AND HORTICULTURAL DIRECTORY FOR 1862.—The first edition of the *Rural Annual* is nearly exhausted and we are now printing a second edition. It will be sent prepaid by return mail to any address on receipt of 25 cents. The volumes for 1856, '57, '58, '59, '60, '61, and '62, will be sent prepaid to any address for \$1.40, or 20 cents each. There is no cheaper or better work published.

THE MARKETS.—Under the influence of the pacific termination of the "American difficulty," the grain markets of Europe manifested a declining tendency for a few days. The last *Mark Lane Express*, however, says "the wheat trade has partly recovered from the late depression, the average gain in value being about 1s. per quarter" [3 cents per bushel.] This high authority estimates that England will require before next harvest *forty-four million bushels of wheat*. Others estimate it much higher.

Hogs still continue very low, but there is a slight tendency to advance. The price in New York ranges from 4½c. to 5½c. for the dead weight, or from 3 to 4c. live weight.

Hay in New York is in demand for shipment in bales at \$15a\$17 per ton.

Coarse wool is somewhat lower, while fine maintains its price.

There is little change in the grain market.

At the last cattle market in New York, the supply of beef cattle was light, and prices advanced one cent per lb. A ¾ Durham white steer, 7 year old, and weighing at home 3,240 lbs., sold for \$250. 14 head of Ohio Durhams, estimated at 13 cwt. each, sold for \$115 per head. Milch cows are looking up. The range of price is from \$30 to \$45 for cows with young calves. The veal that is offered in market, the *Tribune* says, "is undoubtedly tender, as they are often killed at two or three days old."

Sheep brings 5a5½c. per lb. live weight.

GAME IN ENGLAND.—An English farmer once told us that the hares destroyed wheat, barley, turnips, and other crops on his farm to the value of \$500 per annum. The abundance of game, and the high price it commands, render poaching very common, and to check it as far as possible, it is now proposed to make those who sell game attach a ticket to it stating from whom it was purchased. The *Mark Lane Express* suggests a ticket after the fashion of the Smithfield Club card, that the butcher so carefully carries off with him for display in his shop windows. The sarcasm is admirable:

CLASS I.
FAT HARES OF ANY AGE.
First Prize to the breeder, the Right Honorable the Earl of Wholesale, of Slaughtereers, Bagsheer.
Fed by Mr. Veake Tims, of the Open House Farm, upon young wheat, turnips, swedes, carrots, and other roots.
Purchased by Fur & Feather, of the Market Place, Bagsheer.
COPPER MEDAL TO THE FEEDER.—Mr. Veake Tims.

SEEDS BY MAIL.—The new law allowing seeds, plants, etc., to be sent by mail at one cent per ounce, affords an excellent opportunity for obtaining choice varieties at cheap rates. Several reliable parties offer valuable seeds in our advertising columns. Our readers may send to them with confidence. If desired, we will attend to any orders for seeds, plants, etc., that our friends need.

BOUND VOLUMES OF THE GENESEE FARMER.—We can furnish any of the back volumes of the *Genesee Farmer* for 1856, '57, '58, '59, '60 and '61, handsomely bound in cloth, at One Dollar, sent prepaid by return mail. The six volumes will be sent by express for \$5.00.

WESTERN CORN IN THIS STATE.—Our esteemed correspondent, SAMUEL WILLIAMS, of Waterloo, N. Y., sends us a sample of Dent corn, grown by JOSEPH WRIGHT of that village, and says: "I send you the corn from one of Jos. Wright's large ears of dent corn; it was 22 rowed, with a red cob; some were 27 rowed, but not as large kernel nor as heavy ears as the sample. If you will procure the largest ear of flint corn grown with you, you will find, as I did, that it weighs, shelled, one-third less than the dent ear, while the cob of flint, 8 or 12 rowed, is still heavier. One peculiarity of the dent corn is the very small stem that holds the ear to the stalk, and the ear is filled around the butt to the stem, while the flint corn has a stem so large that no corn can grow around even the edge of the butt end. There can be no doubt but that with seed fresh from the West, this dent corn will yield one-third more on the same acre than any variety of Northern corn; and it never fails to ripen here if planted early on extra rich drained soil. Hence I consider it a desideratum for every farmer, who has plenty of manure and but little land, to plant this corn. JOSEPH WRIGHT's seed was from Illinois. J. J. THOMAS measured the corn, and found it from 13 to 15 feet high, and about one-third more corn to the acre than the 8 rowed planted on the same soil.

I planted two rows in my garden, of the same variety, but the seed was grown by WRIGHT last year; it was in drills 4 feet apart, and only 6 inches in the drill; every stalk had one ear, and some two; but the kernel was smaller, and the stalks 2 feet shorter than WRIGHT's from fresh Illinois seed. Next year I shall plant from WRIGHT's grown here this season, and shall thin to 8 inches apart, in order to get larger ears, and more with two on a stalk. It bears no suckers; every year was fully ripe by the 1st of October, and every ear full at both ends of the cob, leaving a space of about $\frac{1}{2}$ of an inch for the stem. I am positive that the yield was over 120 bush. of shelled corn to the acre. You can, after weighing this corn, calculate what the yield would be 4 feet by 8, or say 9 inches apart, counting only one ear to the stalk. WRIGHT cuts all the stalks fine by horse power, and his bright wheat straw is untouched by his stock as long as cut stalks are in the manger. They are cut and stacked as soon as the corn glazes."

DEATH OF PRINCE ALBERT.—In alluding to the death of PRINCE ALBERT, the *Journal of the New York State Agricultural Society* says: "He has held a very important position in the English nation. He was the President elect of the Royal Agricultural Society, and took a very deep interest in the welfare of the Society. The Great Exhibition of 1851 was originated by the Prince, and owed much of its success to him, and he was actively engaged in forwarding the approaching Exhibition for 1862. The Americans who were present at the Exhibition in 1851 will long remember his Highness for his unwearied efforts to have the exhibition in the American division properly brought before the public, and his kind greetings to us after the trial and success of the American reapers, plows, and other implements, when he visited our division with Her Majesty, Queen Victoria, will not be forgotten; and his parting shake of the hand as he left us after the examination, shows that even Princes can appreciate the efforts of others, and can give their aid when most needed to those who have no special claims upon them."

PURE SEEDS.—The importance of sowing clean seed can not be over-estimated. SANFORD ADAMS, of Boston, Mass., has invented a very simple and efficacious machine for the purpose. The *New England Farmer* says:

"We have seen his machines, and found his sifting processes truly wonderful. He has brought them to such perfection, and will furnish the means of doing the same so cheaply, that there is no necessity for the farmer any longer to sow foul seeds, and thus entail upon himself and posterity a perpetual plague and loss.

"What struck us as the most surprising in Mr. ADAMS' apparatus, is the great simplicity with which he accomplishes so much. He not only separates products of different sizes and shapes, but by the application of screw to fan mills, he does so by their specific gravity."

MORE PORK.—I have just returned from a visit to my friends in Schaghticoke and Easton—called at NATHAN G. AKINS', in Schaghticoke, Reusselaer Co., in the afternoon of the 4th of February. He had just finished dressing six hogs. One, two years old, weighed 865 lbs., and five yearlings weighed severally as follows: 767 lbs., 642 lbs., 572 lbs., 538 lbs., 530 lbs. They were fine-boned, of the breed familiarly known with us as the "Wagman" breed in Saratoga County.

ORREN BEWEL, of Easton, Washington Co., dressed on the 3d inst. six fine-bone pigs, nine months and fourteen days old, which weighed as follows: 412 lbs., 448 lbs., 451 lbs., 419 lbs., 372 lbs., 380 lbs.—ABNER DEVOL, *Gausevoort, N. Y.*

What is Said of the Genesee Farmer and Rural Annals.

NEVER have we received so many encouraging notices of the *Genesee Farmer* and of the *Rural Annual and Horticultural Directory* as during the present year. We give below a sample of the many hundred notices recently received.

THE RURAL ANNUAL AND HORTICULTURAL DIRECTORY FOR 1862.—For the last five years we have had occasion to speak of this work, as the successive volumes have been received. All have been good, and the present one, from the glance we have given it, seems not inferior to the preceding. The price is twenty-five cents per copy, which makes it a very cheap source of information.—*Boston Cultivator.*

THE RURAL ANNUAL AND HORTICULTURAL DIRECTORY.—Such is the title of a little book published at the commencement of each year by the editor of the *Genesee Farmer*. The volume for 1862 is received. It is a work which can not be too extensively circulated among all interested in rural pursuits. The six previous volumes received very general commendation, and that for 1862 will be found fully equal to any of the series.—*Maine Farmer.*

THE RURAL ANNUAL AND HORTICULTURAL DIRECTORY FOR 1862.—This is the seventh annual publication of this very useful and popular Annual, the high character of which is fully sustained by the present volume. It is, as several of our readers are aware, published by Mr. JOSEPH HARRIS, at the office of the *Genesee Farmer*, at Rochester in the State of New York, from whence it can be obtained by mail, by remitting the price, only 25 cents! This small sum will appear extraordinary when it is considered that the work is very neatly printed, and illustrated by numerous wood cuts. Publications of this nature can not fail to ensure a highly beneficial influence on the practice of agriculture, and the minds of all that are in any way engaged in country pursuits.—*Canadian Agriculturist.*

THE GENESEE FARMER.—This excellent and extraordinarily cheap agricultural paper has now obtained a standing of more than thirty years, and a circulation surpassing most of the agricultural publications of the present day. The *Genesee Farmer* is truly the "Farmer's own paper," and cannot fail to interest and please, as well as

instruct its numerous readers. No one who has had the privilege of reading the *Farmer* the past two years will be willing to do without it. In fact, he can not afford to do without it. Many of the numbers are worth the whole cost of the year's subscription. Published monthly, at Rochester, N. Y., by JOSEPH HARRIS, at 50 cents per annum. Subscribe for it.—*Repository and Hort. Cabinet.*

GENESSEE FARMER.—This old and really excellent monthly, has a very large circulation and has always been a general favorite with the public. It is published at Rochester, by JOSEPH HARRIS, and costs only fifty cents a year. If any of our friends want a good paper for a very little money, we advise them to make an investment of fifty cents with Mr. HARRIS. It will pay 100 per cent.—*The Dairy Farmer.*

THE RURAL ANNUAL AND HORTICULTURAL DIRECTORY FOR 1862.—This little volume published by Mr. HARRIS, the well-known editor of the *Genessee Farmer*, is designed as a hand-book to those engaged in the culture of the soil, whether in the raising of grain or fruit. It will be found to contain much useful information respecting the culture of wheat, rye, barley, oats, and Indian corn; the planting and culture of fruit trees, and especially of dwarf and standard pears; cider-making; culture of grapes; application of manures, and many other practical articles of value to the farmer and the horticulturist. A large number of engravings illustrate these articles, and yet the volume is offered at the small charge of twenty-five cents.—*New York Evangelist.*

THE GENESSEE FARMER.—We know of no production which has tended to impart so much agricultural information to its readers as the *Genessee Farmer*. If our sturdy sons of the soil would more generally subscribe to this practical manual, they would find themselves not only more wise and better operatives, but richer men. Every monthly issue develops something new and useful to farmers—and lately the public has been surprised by an excellent work from the *Genessee Farmer* office, which every agriculturist and horticulturist should have upon his table. The cost of the *Genessee Farmer* is nominal. The cost of the *Rural Annual*, containing infinite instruction, (and among other things, the method of wine-making,) is 25 cents.—*Glenwood, Iowa, Times.*

THE RURAL ANNUAL AND HORTICULTURAL DIRECTORY FOR 1862.—We have received this annual, in the form of a duodecimo of one hundred pages, and in relation to it we not hesitate to say that it contains a greater amount of interesting and instructive matter than any other work of an equal number of pages that we have had before us. It contains an immense variety of agricultural and horticultural matter, collected with judgment and good taste, and well adapted to the intelligence of all classes of farmers, while it must prove interesting to the general reader. It is in quite a neat cover, and will prove in every way an ornament to the parlor-table of the farmer's homestead. It is published by Mr. HARRIS, editor of the *Genessee Farmer*, Rochester, N. Y., from whom it may be procured, free of postage, by remitting the price, twenty-five cents.—*Evans's Rural Economist.*

THE GENESSEE FARMER IN CANADA.—JOHN McASKIN, of Prescott, C. W., who sent us 102 subscribers for this volume of the *Genessee Farmer*, writes us under date of Feb. 6th, as follows:

"Having received the February No. of your *Farmer*, I have found that Canada has done something large in competition this year, plainly proving that the more your paper becomes circulated, the more it is appreciated and sought after; not on account altogether of its cheapness, but for its sterling merits and genuine usefulness. As I said in my last letter to you, some of the subscribers had never seen nor heard of the paper, and the general impression was in two or three weeks after they signed, that the paper was nothing but a humbug; but when the January number came, it cast all this nonsense in the shade, they having found it to surpass their most sanguine expectations, by treating ably on many subjects of which before they were almost totally ignorant. I think it will be quite easy to raise a pretty large club in this part for next year, on account of its being better known."

Inquiries and Answers.

PEDIGREE WHEAT.—(L. P. STOUTON.) We have no seed of this wheat for sale, and do not know where it can be obtained in this country. MR. HALLETT, the originator, resides at Brighton, England.

ORCHARD GRASS.—(J. CUPPAGE, *Orillia, C. W.*) The specimen of grass you send is the Orchard grass of this country, or the Cockfoot grass of England (*Dactylis glom- erta*). It is a well known and useful grass.

MILKING.—(A Young Milker.) An old milker can get along with a one-legged stool, but one with three legs is better. Do not put the pail on the ground, or stick your head into the flank of the cow. Sit up straight, and close to the cow, and hold the pail between your legs. There is then very little danger of the cow kicking over the milk. After the milk begins to flow freely, do not stop till you are through. Milk steadily, and do not speak a word, except some soothing expressions to the cow. Strip clean. This is very important. A poor milker, and one that leaves milk in the udder, will dry up the cow. The strippings are far the richest milk. Ten cows an hour is good work. We have milked six, except stripping, in half an hour, but they were all easy milkers.

SCAB IN SHEEP.—Can some of your experienced correspondents give me a remedy for scab in sheep?—H. A., *Ann Arbor, Mich.*

SWEET POTATOES.—I would be very glad if you or some of the valued contributors to the *Farmer* would write an article on cultivating and preserving sweet potatoes.—YOUNG FARMER, *Kittanning, Pa.*

LIGHTNING RODS.—Will some of the experienced correspondents of the *Farmer* give us some information in regard to lightning rods—their construction, putting up, etc. I am building a new barn, and would like to know if I can ventilate with board box conductors to an opening in the peak of the roof.—W., *Delaware Co., Iowa.*

SOWING CLOVER AND TIMOTHY.—I find trouble in sowing timothy and clover seed by hand. Will you or some brother farmer inform me through the *Genessee Farmer* where I can purchase a machine that will do it up right, and at what cost. Also, information with regard to the quantity of seed per acre, and in what proportion of clover to a gravelly soil? After sowing, would you harrow it or not? Will some practical man give his views, and by so doing oblige—J. H. McCOLLUM, *Newfane.*

SOD FENCE, ETC.—Can a permanent fence be made to turn farm stock, by placing two parallel rows of blue grass or other sod on the edge, grass side up, filling in with the earth from outside of base, carrying it up conic shape 3 to 3½ feet above the surface—the removing of the earth to fill in forming a ditch 1½ feet deep on each side of base? Will frost or drouth injure the sod in that elevated position?

Also, what is the best mode and season to irrigate meadows? Will some of the readers of the *Genessee Farmer* give their experience?—T. H. P., *Tappan, Ohio.*

DRAIN TILES.—Will some of your correspondents inform me what size of tile I should lay for a main drain to drain twenty acres? There is no spring—only the water that falls on the surface. The soil is a heavy clay, and quite level. Will it do to have an open drain alongside the main covered drain, to carry off the water behind the piece I want to underdrain?

Will three feet be too deep to put the side drains, in a soil so hard that I have to pick it after I get down eighteen inches? Will 25 feet be close enough to put the drains? Is it necessary to put straw on the tiles?—WM. FRASER, *Esquimaux, C. W.*

BEANS AND CORN FOR FEEDING SHEEP.—In your February number, B. F. TAKER inquires "respecting the relative value of beans to corn for feeding purposes."

Some of our farmers who keep from 200 to 500 fine-wooled sheep, have fed beans to their flocks in past winters. A few days ago, I met with one of these flock masters, and made inquiries respecting the matter. He has just sent me a written statement, the substance of which I here forward:

"MR. BARTLETT:—We have fed 'white beans' to our breeding ewes, 120 in number, to the amount of 50 bush., for each of the two last winters. We consider them worth one-third more by weight than corn for the production of milk.

We first tried them ground; but they can not be cracked without there being a flour produced, which they will not readily eat on account of there being a sticky dough formed by means of the moisture from their mouths. We then soaked them in boiling water for an hour or two, but not long enough to start the skin.

The beans cost, delivered at our depot, \$1 per bushel, and were the cheapest feed we have ever used. If we could get them for \$1.25 per bushel, we should use them this year; but we can not, therefore shall purchase shorts.

B. W. COUCH & Co."

The Messrs. COUCH keep about 500 superior fine-wooled sheep, and enter into the business with a right good will, and consequently are successful, making money thereby, having just sold their wool at 50 cents per pound, cash on delivery. Corn here is worth 84 cents per bushel, but for their breeding ewes they would prefer beans at \$1.25.

You say, Mr. Editor, "we would prefer to grind them;" so thought the Messrs. C.; but for reasons given, they soon abandoned it, finding the soaking process much the best. I am of the opinion that soaked corn, upon trial, would be found far preferable to that of the dry feed for sheep or any other animals.

Judging from the analyses of corn and beans, we should prefer corn for feeding sheep, if fattening them was our object. But for the greatest production of wool, muscle, milk and lambs, we should give beans the preference.

As to the nutritive value of corn and beans, according to some of the most eminent agricultural chemists and writers in Europe, 45 lbs. of beans are equivalent to 50 lbs. of corn.

MR. LAWES, basing his calculations upon the constituents of a good Peruvian guano, and its commercial value, estimates the value of the manure derived from a ton of beans at about \$18, while that derived from a ton of Indian corn to be worth only about \$3—a very material difference, and one that should be taken into consideration by the farmer who grains his sheep, whether he raises the feed or purchases it. You, Mr. Editor, in the columns of the *Farmer*, have time and again called the attention of your readers to the importance of growing more largely of leguminous plants—clover, peas, beans, etc.—and if they have not profited by these teachings, you may set them down as incorrigible.—LEVI BARTLETT, Warner, N. H.

BRAN DRILL.—If there is a good machine for drilling beans manufactured in your State, I shall be glad to know the address of the maker.—BUCKEYE.

AMERICAN BEE JOURNAL.—(C. SANDERSON.) This paper is not now published.

GRAPES FROM RAISIN SEEDS.—MR. CHARLES S. RACH of Canada, writes us that he has seen some beautiful large white grapes that were produced from plants raised from the seed of a raisin. He recommends others to experiment with raisin seeds. Take out the seeds, and wash them, and then plant in a warm soil in the spring.

HESSIAN FLY.—J. T. FERGUSON, of Clinton Co., Ohio, writes us that the early sown wheat in his neighborhood is generally destroyed by the fly.

We are indebted to the Hon. ALFRED ELY for the Patent Office Report for 1860, and for the Smithsonian Report for 1859 and 1860.

Special Notices.

BOSTON SILVER MEDAL SCREENS.—These Screens have been celebrated for assorting and cleaning *Wheat for seed, Barley, Oats, Rye, Buckwheat and Beans*. Two Screens, for wheat and oats, 15 by 15 inches, with tray, \$2.75. One Screen and tray, 15 by 30 in., for taking oats, cheat, pink, and all foul stuff from wheat, \$3.25. Four Screens and tray, 15 by 30 in., for sorting marrowfat, medium and pea-beans, broken and refuse, 5 kinds at one operation, \$7.

Orders by mail or express executed at short notice. Manufactory, 34 North Market Street, Boston, Mass. SANFORD ADAMS, Inventor and Proprietor.

COE'S SUPERPHOSPHATE OF LIME.—The following decisive testimony to the value of Coe's Superphosphate as a superior fertilizing agent, is from Hon. AMASA WALKER, of Massachusetts:

NORTH BROOKFIELD, Nov. 26, 1861.
Messrs. Coe & Co., Boston. Gentlemen:—You may recollect that I had of you last spring a quantity of superphosphate of lime. I made use of it in several ways—in each case with satisfactory results. First, on corn. I planted one part of a bushel with the use of fifteen loads of barn manure to the acre, and the other part with your phosphate—a small handful in each hill, probably at the rate of three hundred lbs. to the acre. That which was planted in the latter way was quite as thrifty and vigorous as in the former, and yielded as largely. This much exceeded my expectations. Secondly, I used the phosphate in planting potatoes, and obtained an excellent crop in exhausted pasture land plowed up for the purpose. Thirdly, I used the article for a dressing for an oat crop—with no other manure, and the land previously in low condition. I got 40 bushels to the acre, by the application of 300 lbs. phosphate.

Fourthly, I applied it upon an old and long exhausted pasture land, at the rate of 800 lbs. to the acre. The effect was wonderful, and where almost nothing of any kind had previously grown, I had a full growth of white clover, which the cows fed down too closely, and which showed itself so green, as compared with its surroundings, that it would be plainly distinguished at a great distance.

I made a similar experiment with your phosphate five years since, on a part of the same pasture, and the good effects of it were as visible last year as ever. A rich sward is formed where there was formerly nothing but grey moss and a little struggling June grass.

From these and other similar experiments made for several years, I am satisfied that our old pastures, many of which have been grazed for the greater part of a century, and have become so exhausted by cropping as to be almost worthless, may be rendered very fertile by the application of Superphosphate and other similar fertilizers, and at a cost that will pay. Lean pastures are the greatest drawback upon our agriculture in the older parts of New England. To keep cows through the winter and half starve them all summer, is not a very profitable, though very common operation.

I have this fall sowed my winter wheat with phosphate alone for manure, at the rate of 800 lbs. to the acre; and although the land was the poorest and most exhausted I had on my farm, I have no doubt of a good crop. We are succeeding admirably with wheat in this part of the State, and artificial fertilizers aid us very much. One strong argument in favor of phosphate of lime, and similar manure, is that they can be transported to fields at a considerable distance with little extra cost. I apply my barnyard manure and compost in fields near home, and cultivate all distant lots with portable manure.

My intention now is to use a much larger amount of the Superphosphate of Lime next year than I have done before, especially on corn and grass lands.

I am, very respectfully, your obedient servant,

(Signed)

AMASA WALKER.

ADVERTISEMENT.

A few short advertisements of interest to farmers—and only such—will be inserted in the *Genesee Farmer* for twenty-five cents line, or \$2.50 per square, each insertion, payable in advance. To secure insertion, they should be sent in by the 15th of the previous month.

SOLE PLOWS—By J. DUNHAM, Ithaca, N. Y. 3—If

FOR 50 CENTS—The subscriber will send to any address Receipts for making LIQUORS, WINES, &c., at one-fourth of the present cost. Address CO. NORTON, Box 95, Pittsford, L. E. Co., Pa. *

Concord Grape Vines.

I WOULD give notice that I shall not be able to supply Vines for any more Vineyards till next fall, when I shall have about 0,000 more vines to sell, 50 per cent. lower than others ask, and on a year's credit! I will, however, sell a few the coming spring, new year old vines, grown in the open air, at \$3 per dozen. The Concord is going up with a rush, ahead of the Delaware, and many other variety.

T. B. MINER,
Clinton, N. Y.

SCHENECTADY AGRICULTURAL WORKS,

G. WESTINGHOUSE & CO., Proprietors,

MANUFACTURE Endless Chain or Railway Powers, for One, Two and Three Horses; Four and Eight Horse Lever Powers, Combined Threshers and Cleaners, Threshers and Vibrating Separators, Clover Machines with Huller and Cleaner combined—also, with Thresher, Huller and Cleaner combined; Wood Sawing Machines, both Circular and Drag; Cider Mills and Corn Shellers combined; Dog or Sheep Powers, &c.

For Descriptions and Prices of above named articles, apply for an Illustrated Circular. Address

G. WESTINGHOUSE & CO.,

March.—3t Schenectady, N. Y.

TREES AT LOW PRICES.

For Spring of 1862.

ELLWANGER & BARRY

RESPECTFULLY invite the attention of the public to their present immense stock, covering upward of FIVE HUNDRED ACRES OF LAND, and embracing everything desirable in both

Fruit and Ornamental Departments,

Grown in the very best manner, and offered either at wholesale or retail, at greatly reduced prices.

Parties who contemplate planting should avail themselves of this opportunity, the like of which may not occur soon again.

Descriptive and Wholesale Catalogues forwarded gratis on receipt of a stamp for each, and all information as to prices, &c., promptly given on application.

MOUNT HOPE NURSERIES,
ROCHESTER, N. Y.

Marblehead Cabbage Seed.

STONE MASON CABBAGE.—I have received numerous letters from farmers residing in Canada and all the Northern, Middle and Western States, who purchased seed last season, expressing the highest satisfaction with this Cabbage—its reliability for heading, the large size of the head; the peculiar sweetness and hardness of the head, and first-rate keeping qualities. A large number took the first premiums at the Fairs of their respective counties. A number write that every plant set a handsome head; one that he sold \$50 worth from less than a seventeenth of an acre of land. I have copied a number of these letters into my Seed Catalogue.

MARBLEHEAD MAMMOTH DRUMHEAD.—Numbers have written me of their success with this monster variety; that they raised cabbages weighing from 25 to 45 lbs.—the general wonder of the community. They have been raised weighing 62 lbs. I regret that I have but a limited supply of seed this season. I will fill orders as long as it lasts.

Stone Mason Cabbage, per ounce, I preparing postage, 25 cts.; per lb., \$2.67. Marblehead Mammoth, per package of about 1000 seeds, 25 cents. Hubbard Squash, per package, 12 cents.

The seed is of my own raising, and warranted of the purest quality grown.

CATALOGUES forwarded to applicants, of every variety of Garden seeds and many hundred varieties of Flower seeds.

JAMES J. H. GREGORY,

March.—3t

Marblehead, Mass.

GENESEE SEED STORE

AND

AGRICULTURAL WAREHOUSE,

17 South St. Paul Street, Rochester, N. Y.

Seeds for Spring of 1862.

I HAVE received, during the last fall and present winter, from English, French and American growers of undoubted veracity, "not" the largest and finest lot of Flower and Vegetable Seeds ever imported into this country (I have also done the same thing for fourteen years), but five times as large, and just as good, and in some cases better than another party who boasts of the largest stock ever imported into this country.

I will send to any party for One Dollar, 20 papers of Choice Flower Seeds. Among them, one each of the finest Asters, Balsamines and Stocks, all to be as good as can be got in this city at double the price.

I will also send for One Dollar, Twenty papers or packages of Flower and Vegetable Seeds, assorted as parties may desire.

CATALOGUES of Garden, Field and Flower Seeds sent to all applicants.

I will send as above, to all who may favor me with an order, by mail, post paid, to any part of the United States, or to the lines, if ordered for Canada. Address. J. RAPALJE.

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And other Seed, Forwarded by Mail, Post-paid.

THE NEW FRENCH TOMATO.—This new variety is called Bush, or Tree Tomato, being very stocky and erect, differing markedly from any other variety. The fruit is large, solid, and of excellent quality. A single stake is all that is needed to support the plant when laden with fruit. Packages containing 50 seeds, 15 cents. New White Tomato, 18 cents. Perfected (Lester's), 12 cents. Early Paris Cauliflower (the best early variety), 25 cents. Early Frame Cucumber (improved by Newhall), 10 cents. New White Spine Cucumber, 10 cents. Squash Pepper (warranted true and fresh), 10 cents. Tom Thumb, or Strawberry Pea (grows but eight inches high and bears well), 12 cents. Darling's Early Sweet Corn (best of the early sweet varieties) 10 cts. Burr's Mammoth Sweet Corn (best of all the large varieties), 10 cents. Stowell's Evergreen Corn (exceeds all in keeping long in green state), 10 cents. Indian Chief Bean (pod is nearly transparent and always fit for stringing), 10 cents. Tenn's Ball Lettuce (early), 6 cents. Imperial Cabbage, 6 cents. Mountain Sweet Watermelon (new and excellent), 10 cents. Christiana Muskmelon (early and superior), 8 cents. Cole's Crystal White Celery, 10 cents. Hubbard Squash (purest grown), 12 cents. Dandelion Seed, 10 cents. Early Scarlet Radish, 6 cents. Extra Pure Marrow Squash, 10 cents. Danver's Early Yellow Onion, 10 cents. All of the above will be sold by the ounce or pound.

CATALOGUES of every variety of Garden and Flower Seeds, with prices, forwarded gratis.

Part of my seed is of my own growing, the remainder from reliable sources.

JAMES J. H. GREGORY,

Marblehead, Mass.

DEWEY'S COLORED FRUITS AND FLOWERS,

FOR the use of Nurserymen and Tree Agents—embracing nearly 400 varieties of Apples, Pears, Plums, Cherries, Peaches, Quinces, Apricots, Nectarines, Grapes, Strawberries, Currants, Raspberries, Flowers, Roses, Evergreens and Shrubbery, CAREFULLY DRAWN FROM NATURE AND COLORED BY EXPERIENCED ARTISTS.

I have in my employ some of the most experienced Lithographers and Horticultural Colorists in the United States. A large number of the more popular Plates are Lithographed—which enables me to produce the most perfect Plates made; for the accuracy and beauty of which, I have received the SILVER MEDALS of the New York State Agricultural Society, also Medals and Diplomas from other State Societies.

CATALOGUES sent on application by mail.

Imitations of my Plates have been made and offered at low prices. To guard against imposition and inferior Plates, I have my name attached to all my Plates.

Nurserymen and Tree Agents, please send for a Catalogue.

Address D. M. DEWEY, Ag't, Rochester, N. Y.

Wanted—Concord Grape Vines.

ANY person having GENUINE Concord Grape Vines for sale in lots of 100 to 1,000, may hear of a cash purchaser by applying to T. B. MINER, Clinton, Oneida Co., N. Y.

50 VARIETIES OF BURR-STONE FLOUR AND GRAIN MILLS. Prices from \$60 to \$500. Illustrated Catalogues furnished.

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Mar.—3t

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Everybody should have a Copy.

Rural Annual and Horticultural Directory, FOR 1862.

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THE *Rural Annual and Horticultural Directory* is a book of 120 pages, published at the beginning of each year, at the office of the *Genesee Farmer*. It is filled with matter interesting and useful to every one engaged in the culture of the soil, in town, village, country or city.

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CULTURE OF DWARF AND STANDARD PEARS;
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ON CIDER MAKING;
AMOUNT OF ROOTS FROM CLOVER AND GRASSES;
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CHINESE HOGS;
PIENS AND THEIR MANAGEMENT;
CULTURE OF THE PEACH IN THE MIDDLE STATES;
COVERING GRAPE VINES IN WINTER;
TREATMENT OF MILCH COWS;
APPLICATION OF MANURE;
CULTURE OF WHITE BEANS;
THE ENGLISH MUTTON SHEEP,

With a great variety of other matters of general interest.

Price only 25 cents. It will be sent prepaid by return mail to any address. Send the money in postage stamps.

Address JOSEPH HARRIS,
Publisher of the *Genesee Farmer and Rural Annual*,
Rochester, N. Y.

☞ The *Rural Annual* has been published seven years. The seven numbers—for the years 1856, '57, '58, '59, '60, '61 and '62—will be sent, prepaid, by return mail, to any address for \$1.40.

IMPORTANT TO STOCK GROWERS.

THE FOURTH VOLUME OF THE

AMERICAN STOCK JOURNAL,

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IT is devoted exclusively to matter relating to the breeding, care and management of our domestic animals, and is the largest, cheapest, and most widely circulated periodical of the kind in this country. Thirty-two large octavo pages, handsomely illustrated. Every stockman should have it.

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I HAVE for sale a few BULLS and BULL CALVES, COWS, and HEIFERS, mostly by the Imported Bulls Duke of Gloucester (11,382) and Grand Duke of Oxford (16,184).

Ja.—4t JAMES O. SIELDON, Geneva, N. Y.

FOWLER'S PATENT STEAM PLOWING MACHINERY.

PATENT-RIGHTS for States and Counties and Machines are now for sale. Descriptive pamphlets sent post free. Apply to R. W. EDDISON, 608 South Delaware Avenue, Philadelphia. Jan.—4t

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THE following works on Agriculture, Horticulture, &c., may be obtained at the Office of the GENESSEE FARMER:

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THE Proprietors have on hand a general assortment of

Fruit and Ornamental Trees, Grape Vines,

Including all the new varieties that are desirable: SHRUB ROSES, and HERBACEOUS PLANTS. Among the latter,

DONNELLAN'S NEW SEEDLING PEONIES.

Also, GREENHOUSE and BEDDING-OUT PLANTS, BULB &c., &c.

☞ Send for CATALOGUES. Address J. DONNELLAN & CO., Rochester, N. Y.

SEEDS! GARDEN SEEDS!

FROM HALLOCK'S SEED AND AGRICULTURAL WAR-

HOUSE.—The subscriber will forward by mail, postage paid to any address in the United States, a package of twenty six-penny papers, well filled with good and reliable vegetable seeds, of good varieties to supply the garden, on receipt of \$1 by mail. A paper flower seeds will be substituted if desired. Send on your order. If you wish any particular varieties, name them and they will be substituted if they are to be had in this market. Address March.—2t* E. D. HALLOCK, Act., Rochester, N. Y.

WOOD CUTS FOR SALE.

WE will sell Stereotypes of the Wood Cuts used in the *Genesee Farmer and Rural Annual and Horticultural Directory*. A book containing impressions of over Seven Hundred of these cuts will be sent to those wishing to purchase on the receipt of 50 cents. The book contains an index, showing where descriptions of the cuts will be found.

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OPORTO VINES, \$1 EACH; \$6 PER DOZEN.

FOR FIVE DOLLARS I will box and deliver to the Express or Railroad the following vines, one half of them 2 years old: 3 Oporto, 1 Rebecca, 2 Concord, 1 Delaware, 2 Hartford Prolific, 2 Clinton, 2 Isabella.

For vines or catalogues of Lyons Nursery, or terms to Agent address Ja.—3t E. WARE SYLVESTER, Lyons, N. Y.

FOR SALE.—By the subscriber, a MORGAN BLACK HAWK STALLION, sired by Black Hawk, Jr., is five years old and stands fifteen and a half hands high. Is a beautiful mahogany bay, with black legs, mane and tail. Weighs about 1100 lb when in good condition. Is compactly built, possessing remarkable intelligence and muscular powers, having a strong, vigorous constitution. Has an easy, open gait and bids fair to make a fast traveler. JACOB HOUSTATER, Pekin, Niagara Co., N. Y. March.—3t*

\$100 PER MONTH.—Made by any one with Stencil Tool For a circular explaining the business.

Address JOHN M. LIKEN, Lawrence, Mass. May.—1y.

TO WOOL GROWERS.—I completely cured 100 Sheep of the FOOT-ROT last year, at the small expense of 50 cents. The recipe for doing which, I will send to any address for 50 cents. D. HALL, Medina, N. Y.

For Spring of 1862.

FINE IMPORTED FLOWER SEEDS,

For Sale by JAMES VICK, Rochester, N. Y.

I HAVE received during the present winter, from the most reliable growers of England, France, and Germany, the largest and finest lot of FLOWER and VEGETABLE SEEDS ever imported into this country, embracing all that is old and valuable, as well as everything new and rare, at a moderate price, and afford the lovers of flowers in this country a rare opportunity to obtain the floral treasures of Europe, as well as the choicest of its vegetable productions. A few of the leading varieties are named below, and a full catalogue will be mailed to all applicants.

FLOWERS THAT BLOOM THE FIRST SEASON.

ASTERS.—Double Dwarf Pyramidal Boquet Flowered; Truffaut's Penny 1 flowered Perfection, in twelve colors, all mixed, or in separate papers; Imbricate Pomponne, or Daisy Aster; New Crown, or Two Colored, one of the most delicate, yet showy; New Chrysanthemum Flowered.

STOCKS.—Ten Week.—New Largest Flowered Dwarf, twelve colors mixed, or each color separate; Large Flowering Dwarf Pyramidal; Walt-Flower-Leaved; Branching German; Autumnal Flowering; Emperor.

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ANTHRINUM.—Brilliant, Firefly, Papilionaceum, Dwarf Striped, &c., mixed or separate.

PANSIES.—of first quality, both English and German.

CONVOLVULUS MINOR.—Double New, Splendens, New Dark, Striped, &c.

CONVOLVULUS MAJOR.—MORNING GLORY.—In every variety of color, separate or mixed.

ALSO:

Calliopsis; Chinese Pinks; Delichos Lablab; Nasturtium, in a dozen varieties; Gillia; Petunia; Leptosiphon; Escholtzia; Salpiglossis, tall and dwarf; Sensitive Plant; Ice Plant; Cockscomb; Nemophila; Marigolds; Zinnia Elegans; Sweet Peas, a dozen colors; Marvel of Peru; Sweet Scabious, and almost every Annual worthy of cultivation.

EVERLASTING FLOWERS.

I have every known variety of this interesting and beautiful class of flowers, now so popular for winter bouquets, worthy of cultivation.

HELICHRISUM.—One of the largest and most showy, in four varieties, each of many colors. Moxstrosium—Large and fine mixed colors; Rosea pleno; Red; Double Dwarf, &c.

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RHODANTHE MANGLESII, Polycalymna Stuarti, &c.

CRNAMENTAL GRASSES.

These, with the Everlasting Flowers, form the best of Winter Bouquets, Baskets, and other Winter Floral Ornaments. I have twenty varieties. The following are some of the most desirable: Anthoxanthum Gracile, Briza, Mimula, Medium and Maxima; Lamarkia aurea; Chloris Radiata; Elymus Hystrix; Lagurus Oratus; Pennisetum Longistilum; Briza Geniculata.

FLOWERS THAT BLOOM SECOND YEAR.

HOLLYHOCK.—Fine seed from best Double varieties, of Dwarf habit.

PICOTEES and CARNATIONS.—From the best Continental growers.

SWEET WILLIAM.—Extra fine.

AQUILEGIA.—Finest Double varieties.

Aconitum; Canterbury Bells; Delphinium, several beautiful varieties; Digitalis; Everlasting Pea; Oriental Poppy; Lobelia; Penstemon, and many other Herbaceous and Perennial Plants.

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CABBAGE.—Early Winningstadt, Blood-Red Late, Large White Erfurt, Large-Headed Savoy.

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TOMATOES.—Lester's Perfected, Large Early Red, Yellow Egg-shaped, and Red Egg-shaped.

SQUASH.—All desirable Summer varieties, and the Hubbard for Winter, pure.

Also.—A good variety of Parsnips, Beets, Turnips, Sals fy, Spinach, Savoy, Pepper, and other Vegetable seeds.

For the convenience of those who order Seeds I will send any of the above, by mail, postage paid, at ten cents per package. When the order amounts to \$1, two packages extra may be ordered. For \$2, six packages extra, and for \$5, twenty extra packages,—all which will be sent free of postage. To those who leave the selection to me I will send fifteen papers for \$1, with a fair proportion of the newer and more expensive varieties.

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CHOICE ENGLISH GARDEN PEAS.

I offer to the lovers of this delicious vegetable some twenty varieties of the newest and choicest *English Garden Peas*, embracing the earliest, medium, and late, which will give a succession during the season. These will be found very superior, and in fact bearing no comparison, to the varieties commonly grown.

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MEDIUM.—HARRISON'S GLORY, fine bearer and excellent, 2½ to 3 ft.; HARRISON'S PERFECTION, very productive and good, 2½ to 3 ft.; NAPOLEON, excellent cropper and fine, 2½ ft.; LORD RAGLAN, splendid quality and very prolific, 3 ft.; EUGENIA, new, fine, and great producer, 2½ ft.; VITCH'S PERFECTION, at least one of the best in cultivation for quality and production, 3 ft.

CLIMAX, prolific, good, 3 ft.; RISING SUN, best early green marrow, 4 ft.; NEW PURPLE BLOSSOMED SUGAR, fine, sweet, eatable pods, 6 ft.

LATE.—NE PLUS ULTRA, dark green, fine, good bearer, 6 to 7 ft.; TALL GREEN MAMMOTH, very fine, 6 to 7 ft.; COMPETITOR, very large, green, tall and excellent.

I will send any of the above choice Peas by mail, in strong cloth bags, each containing eight ounces, postage paid, for 25 cents each. A quart will weigh about 20 ozs.

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JONAS BROOK & BROTHERS'

PRIZE MEDAL SPOOL COTTON,

270 or 500 yard spools, White, Black, and Colored.

FOR MACHINES, use BROOK'S PATENT GLACE for upper thread, and BROOK'S SIX COID RED TICKET for under thread. Sold by all first class dealers in city and country; also in cases of 100 dozen each, assorted numbers, by WM. HENRY SMITH, Sole Agent, 36 Vesey street, New York. Ja—ly

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TRUE BOSTON CURLED LETTUCE.—I introduce this new variety as surpassing all varieties of the Lettuce family in excellence and elegance. I would invite attention to the rare beauty of its structure and unequalled symmetry of its growth. It is perfectly hardy. Packages containing seed sufficient to supply a family for a season, with directions for cultivation, post paid, 30 cents each; six packages, \$1. Every variety of garden seed for sale. Catalogues gratis, JAMES J. H. GREGORY, Marblehead, Mass.

Feb.—21

PREMIUMS!

PREMIUMS! PREMIUMS!

To Every Reader of the Genesee Farmer.

ALL PRIZES AND NO BLANKS!

How to Do Good and Get Pay for it.

GREAT PAY FOR LITTLE WORK!

BEING desirous of doubling the circulation of the *Genesee Farmer* the present year, we have concluded to offer the following Premiums to those who send us subscribers:

Book Premiums.

1. To every person who sends us the name of one subscriber to the *Genesee Farmer* for the year 1862, and 50 cents, we will send a copy of The Young Housekeeper and Dairymaid's Directory, by Mrs. ELIZA A. CALL, or one copy of the *Rural Annual and Horticultural Directory* for 1860 or 1861, sent prepaid by return mail.
2. To every person who sends us two subscribers and one dollar, we will send the *Rural Annual and Horticultural Directory* for 1860 and 1861, prepaid by return mail.
3. To every person who sends us three subscribers and \$1.50, we will send a copy of Liebig's Animal Chemistry, or three numbers of the *Rural Annual*.
4. To every person who sends us four subscribers and \$2.00, we will send one copy of the Farmers' Practical Horse Farriery, prepaid, by return mail.
5. To every person who sends us five subscribers and \$2.50, we will send one copy of the *Genesee Farmer* for 1856, nicely bound in stiff paper covers, prepaid, by return mail.
6. To every person sending us six subscribers and \$3.00, we will send Rogers' Scientific Agriculture, or a handsomely bound volume of the *Genesee Farmer* for 1860, prepaid, by return mail. [The invariable price of the latter is \$1.00, and there is no cheaper work.]
7. To every person sending us seven subscribers at 50 cents each, we will send one copy of Mrs. S. J. HALE's Modern Cookery, prepaid, by return mail.
8. To every person sending us eight subscribers at 50 cents each, we will send a copy of The Horse and his Diseases, or a copy of Everybody's Lawyer, prepaid, by return mail.
9. To every person sending us twenty subscribers at 50 cents each, we will send a copy of The Rural Poetry of the English Language, the best and handsomest work of the kind published.
10. To the person sending us eighty subscribers at 50 cents each, we will send Morton's Cyclopedia of Agriculture, prepaid, by return mail. This is the best work on agriculture extant and sells for \$18.00.

Seeds, Grape Vines, Fruit Trees, etc.

11. To every person sending us two subscribers, at 50 cents each, we will send a package of Flower Seeds, containing six papers of the choicest and best seeds imported from France and England, and which sell at from six to ten cents each. They will be forwarded, prepaid, by return mail.
12. To every person sending us three subscribers at 50 cents each, we will send, prepaid, by return mail, ten papers of choice imported Flower Seeds.
13. To every person sending us four subscribers at 50 cents

each, we will send sixteen papers of choice imported Flower Seeds, prepaid, by return mail.

14. To every person sending us five subscribers at 50 cents each, we will send a Delaware Grape Vine, prepaid, by mail.
15. To every person sending us eight subscribers at 50 cents each, we will send two Delaware Grape Vines, prepaid, by mail.
16. To every person sending us twelve subscribers at 50 cents each, we will send three Delaware Grape Vines, prepaid, by mail.
17. To every person sending us fifteen subscribers at 50 cents each, we will send four Delaware Grape Vines, prepaid, by mail.
18. To every person sending us seventeen subscribers at 50 cents each, we will send five Delaware Grape Vines, or one each of Delaware, Concord, Rebecca, Hartford Prolific and Crivelen; and for a larger club in the same proportion.
19. To every person sending us fifty subscribers at 50 cents each, we will send eight dollars worth of Fruit or Ornamental Trees, Grape Vines, Strawberry Plants, etc.
20. To every person sending us sixty subscribers at 50 cents each, we will send ten dollars worth of Fruit Trees, etc.
21. To every person sending us one hundred subscribers at 50 cents each, we will send twenty dollars worth of Fruit Trees, Grape Vines, Strawberry Plants, etc.

It must be borne in mind that these premiums are offered for subscribers at fifty cents each. All subscriptions will commence with the January number.

Premiums at Regular Club Rates.

1. To every person who sends us eight Subscribers, (at our lowest terms of thirty-seven and a half cents each,) we will send, postage paid, a copy of our beautiful twenty-five cent book, the *RURAL ANNUAL AND HORTICULTURAL DIRECTORY* for 1862.
2. To every person who sends us sixteen subscribers, (at our lowest club terms of thirty-seven and a half cents each,) we will send one extra copy of the *GENESEE FARMER*, and one copy of the *RURAL ANNUAL*, prepaid, by mail.
3. To every person sending us twenty-four subscribers, (as above,) we will send two extra copies of the *FARMER*, or two copies of the *RURAL ANNUAL* and one extra copy of the *FARMER*.
4. To every person sending us thirty-two subscribers (at 37½ cents each), we will send one copy of Mrs. HALE's Modern Cookery Book, prepaid, by return mail.
5. To every person sending us forty subscribers (at 37½ cents each), we will send one copy of Everybody's Lawyer, or The Horse and his Diseases, prepaid, by return mail, or sixteen packages of Flower Seeds—and to larger clubs at the same rate.

Our Agents can club the *Genesee Farmer* and *Rural Annual* together at 50 cents the two.

Money may be sent at the risk of the Publisher

Address JOSEPH HARRIS,
PUBLISHER AND PROPRIETOR OF THE GENESEE FARMER,
March 1, 1862. ROCHESTER, N. Y.

THE GENESEE FARMER.

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Address JOSEPH HARRIS,
PUBLISHER AND PROPRIETOR OF THE GENESEE FARMER,
ROCHESTER, N. Y.

**CULTIVATION OF BARLEY.**

WE have frequently called attention to the fact that American barley is far inferior to that grown in England. The wheat grown in "the Genesee country" and in Canada West, is often *superior* to the best English wheat; but our best barley will not compare with an average sample of that grown in the moist climate of Great Britain. The reason of this is, doubtless, owing in part to the shortness of our growing season. It is not improbable, however, that we might produce much better samples of barley if we were more careful in selecting the seed, preparing the ground, sowing early, and in cleaning the crop for market.

Barley requires a dry, warm, active, mellow soil. What are popularly known as "barley soils" in England are rather too light and sandy for wheat, without the consolidating action of the sheep which eat off the turnips on the land during the winter. Unfortunately, light, sandy soil is very often deficient in plant-food, and needs to be manured in some way before it will yield maximum crops of barley. This is the great difficulty in growing barley in this country. In England, the light barley soils are enriched by the growth and consumption on the land of a heavy crop of turnips. But as yet we have no crop that occupies the same position in any of our systems of rotation. We can enrich our land for wheat by plowing in clover; but this cannot be done for barley.

The usual way of enriching land for barley is by manuring the soil for corn. We know of no better plan. We might use some artificial manure for barley, such as superphosphate of lime or Jarvis & Baker's Island guano, mixed with Peruvian guano. Superphosphate of lime and the phosphatic guano are found in England to have a better effect on barley than on wheat. It is better, however, to mix them, half and half, with Peruvian guano. We do not say that these manures will *pay*, but they are worth trying, especially on poor land.

By plowing the land in the fall after corn, barley may be sown in the spring without again plowing the land, except with a gang plow or cultivator. The advantages of this plan are, that it saves labor in the spring, when other work is pressing, and the barley can be sown earlier.

Barley should be sown as early as the ground is in good working condition—the earlier the better. It is the first crop to be attended to in the spring. But as it requires fine tilth and a mellow soil, working it while it is wet must be specially avoided.

We usually sow too little barley seed. We would never sow less than two bushels per acre, and $2\frac{1}{2}$ bushels if sown broadcast is usually none too much. When the plants are up out of the ground, the barley may be rolled, if not done before. Of course, the land must be dry enough not to clog.

In England, clover is generally sown with the barley crop in the spring. This is not generally done in this section with us; but where it is desirable, clover can be sown with barley to advantage if the ground is clean. In this case, it is well to sow a bushel of plaster per acre on the land, not so much for its effect on the barley, as on the young clover plants. It *may* benefit the barley somewhat, but is always sure to help the clover more than enough to pay the slight cost of the plaster.

In saying that barley likes a light sandy soil, we would not be understood as asserting that it will not succeed on soils of a heavier character. This is not the case if such lands are thoroughly worked and got into a mellow condition. The heaviest crop of barley we ever saw was on a strong clay soil that had been summer fallowed the year before, with the intention of sowing it to wheat. It so happened that the wheat could not be sown, and barley was sown the following spring. The result was an immense crop of barley. We also saw the same thing, some years ago, on the farm

of JOHN JOHNSTON, in Seneca County, N. Y. He had a field summer fallowed for wheat, but gave up the idea of sowing it on account of the ravages of the midge. He sowed it to barley the next spring, and had a noble crop. These instances show that *thorough cultivation* will enable somewhat heavy land to produce large crops of barley.

COFFEE SUBSTITUTES—CULTIVATION OF CHICORY.

JOSEPH HARRIS, ESQ.—*Dear Sir:* Knowing you to be well posted on English agriculture, stock raising, etc., and, I presume, with the specialties or miscellaneous branches of agriculture which abound in England, it has occurred to me that you would be the most likely person to be able to tell us something about the culture of chicory; but more especially what the prospects for profit and success would be to introduce its culture into this country.

I know that chicory is used very extensively in that country, by coffee roasters and dealers, to adulterate their coffee with, and by families and those who prefer to buy it unadulterated, i. e., whole, to mix with theirs; that it comes nearer to coffee than any other substitute, is not easily detected, and is said indeed to *improve* the coffee itself; that people there do not object to the use of chicory, but object to pay coffee price for it, and mix it themselves, and prefer to have it rather than their coffee without it.

Now, coffee is high in this country, and is likely to continue so, and everybody is looking around for, and using some substitute, either wholly or to mix with coffee, and are generally falling back upon the old articles, rye, corn, peas, etc., while dozens of other articles are suggested by one and another, all of which are, after all, really but poor substitutes, being insipid, flavorless, not stimulating, and the merest makeshifts.

Chicory has not, I presume, been much used heretofore in this country. But there is now a tariff on it (I am told) as well as on coffee; and the high price of the latter, with the people loudly calling for substitutes, and the tariff on chicory, would it not be likely to become a special crop—one that a demand might be created for, and be made to pay if introduced? Can you oblige me with any information, or your opinion, first, on these points; second, on its mode of culture, preparation for market, average yield and price, and any other statistical matters concerning it, with reference to England, and if any examples of its culture have come under your observation in this country? If you can, would it not be worth embodying in an article in your excellent *Genesee Farmer*, as it is a subject claiming a good deal of attention, and I think would prove interesting to very many of your readers?

I do not see that the seed is named in any seed catalogue that I have got hold of—Thorburn's, Buist's, Dreer's, and others. It can not probably be procured in this country. Yours truly,

St. Louis, Mo.

C. SANDERS.

Chicory (*Cichorium intybus*) was first introduced into England by ARTHUR YOUNG, in the year 1780. It was principally grown for sheep. It was found

to flourish upon almost any kind of land, and it is thought that it will keep more sheep per acre, during the early summer months, than any other kind of herbage plant. For this purpose the seed is sown broadcast in the spring, at the rate of from seven to twelve lbs. per acre.

When raised for fodder, the seed is sown in drills about nine inches apart, and the plants thinned out with the hoe six inches apart. With clean culture, the plants will last for eight or ten years, and produce abundant crops. When sown in drills, 4 lbs. of seed per acre is sufficient.

The plants grow from six to eight feet in height. The stem is branched, and clothed on all sides with leaves, up to its very top. It is, therefore, very desirable that the plants be not too thick.

It will be seen that the cultivation of chicory for fodder is very similar to that of lucerne. There is this difference, however, between the two crops: lucerne requires very rich land, while chicory will grow on the poorest soils, and is, therefore, well adapted for renovating impoverished farms.

Chicory has been grown on the continent of Europe, as a "substitute for coffee," for many years, and it is now extensively cultivated in Yorkshire and other parts of England for the same purpose. "Morton's Cyclopedia of (English) Agriculture," speaking of it, says: "As a plant of such speedy growth, and in all seasons, wet or dry, it can not be too strongly recommended for general use, and more particularly for the small occupiers. Cow-keepers would do well to cultivate it, and cottagers ought by all means to employ it in a *double manner*."

The "double manner" refers to the use of the roots for coffee, while the stems are used for fodder. VON THAER, a well known and reliable German agricultural writer, says: "Of all plants which have been proposed as substitutes for coffee, and which when roasted and steeped in boiling water yielded an infusion resembling coffee, chicory is the only one that has maintained its ground."

When grown as a root crop, the cultivation of chicory is very similar to that of the carrot—in soil, preparation, manuring, seeding, weeding, harvesting, etc.

When dug, the tops are neatly cut off, and the roots washed and cut into slices by hand or with a turnip cutter. The slices are then dried in a kiln, and afterward sold to the grocers, who roast and grind it as they do coffee.

An average crop of fresh roots may be stated at eight tons per acre, and the price in England at

\$15 per ton. This would give \$120 per acre. The cost of culture would be about the same as carrots.

According to the analysis of Dr. ANDERSON (High. Soc. Trans., 1853, pp. 63 and 655), the fresh roots contain 80 per cent. of water. A crop of eight tons, therefore, would give 3,200 lbs. of dry roots (or coffee) per acre.



COMMON CHICORY PLANT.

We annex an excellent engraving of the leaves and flower of chicory. The plant in appearance is not unlike the dandelion. The "dandelion coffee" sold in our drug stores, is chiefly, if not entirely, chicory.

CANADA.—The last London *Mark Lane Express* says: "Previous to the exhibition in London and Paris in 1851 and 1855, few people gave Canada credit for aught beyond dense forest and hyperborean climate; and they were amazed to find her sustaining pretensions which indicated a fine climate, a fertile soil, wealth in mine and forest, and a people who add to energetic industry a full average excellence in the mechanic arts. Her soil is boundless and fertile; her forests, extending over 360,000 square miles, have no superior on the face of the globe, and are waiting only the application of labor and capital. Her past progress is marvellous, and her future will be more so."

CULTIVATION OF SPRING WHEAT.

The principal aim in the cultivation of spring wheat should be to get the soil into a fine, mellow condition. It does best after corn that has been well cultivated. The soil should be warm and active. We think it seldom does well on sod ground plowed in the spring, and sowed at one furrow. On clover sod, however, that has been summer fallowed, it succeeds admirably. It is frequently sown on land that is too low and soft for winter wheat. Heavy crops are occasionally obtained from rich soil of this description. But with us the result has not generally been satisfactory. If the summer is dry and hot, a good crop may be obtained; but in a cool, moist season, the mildew or rust is almost sure to strike it.

In regard to the time of sowing, there is much difference of opinion. Many farmers prefer to prepare the land in the fall, and then sow as early as the ground will work nicely in the spring. We would not sow as long as the ground is wet and clammy. Nothing is gained by burying seed in a cold soil surcharged with water, and land plowed while it is wet can never be got into good tilth.

Others prefer to sow spring wheat quite late—say the middle of May. They say that by doing so, all danger of the midge is over before the wheat comes into flower. We have known instances where late sown spring wheat has escaped the midge, while that which was sown earlier was much injured.

Our rule would be to sow early, if the ground can be got into good condition. If not, wait till after the other spring crops are sown.

It is very desirable to give the plants a good start. The roots of winter wheat ramify through the soil much more than spring wheat. The latter, like barley, have a more circumscribed range. It is, therefore, more necessary to have the "food of plants" in the soil in a more concentrated and more available condition for spring than for winter wheat.

Mineral manures are seldom needed for winter wheat. But, for the reasons already mentioned, it is not improbable that they may prove beneficial on spring wheat. Last spring we made some experiments with the view of testing this point. The wheat was sown May 10th, and the manures were sown broadcast the next day. The plots were a quarter acre each. One plot was dressed with 50 lbs. of plaster, or 200 lbs. per acre. The next plot received 50 lbs. superphosphate of lime (200 lbs. per acre.). The next plot, 50 lbs. superphosphate

of lime and 100 lbs. of unleached wood ashes (400 lbs. per acre.) Two plots, one on each side, were left without manure of any kind. The result was, that *we could see very little difference between any of the plots.* Those that had no manure of any kind were nearly, if not quite as good as those which were top-dressed with plaster, superphosphate, ashes, etc. The land was an old meadow, that had lain in grass for many years. It was underdrained and broken up in 1860, and planted to corn, and sown to wheat the next spring. The crop was rather poor on the whole. The variety was the Fife, the seed being obtained from Canada. We believe this variety one of the best, but it is perhaps better adapted to dry upland than to soils of a softer character.

SOWING CLOVER SEED.

WERE we gifted with a poet's genius, we would sing of CLOVER. Not of its beauty, not of its fragrance merely, but of its utility. It is the grand renovating plant of American agriculture. Its roots bring up nutriment from the subsoil, and its leaves sip fertility from the atmosphere.

"Raise your own clover seed, and sow it with an unsparing hand," is our standing advice to all wheat growers. If land will produce a good crop of clover, you may be sure it contains all the *mineral* plant-food required to produce a maximum crop of wheat, or corn, or barley, or oats, or any other cereal.

Any thing which increases the growth of clover indirectly increases the growth of wheat and other cereal crops. In this way plaster or gypsum becomes a valuable fertilizer for the wheat grower. It has itself little direct effect on wheat, but it frequently increases the growth of clover to a considerable extent. This clover when plowed in for wheat, or if consumed on the farm either in the green state, or made into hay, furnishes manure of good quality. It may be said that the same is true of the grasses, oats, corn, etc. But there is this great difference between them. The clover *retains all the ammonia* it gets from the soil and the atmosphere, while the grasses and grains do not. The growth of grains and grasses always involves a certain loss of ammonia, but this is not the case with clover, peas, beans, and other leguminous plants.

Grow clover, then; grow it as a renovator; grow it for its food and for its fertilizing power. Grow it wherever it can be brought into the rotation. Sow it with wheat, sow it with barley,

so it with oats, sow it with corn. Sow it on a sandy soil, even if you intend to plow up the land the next spring.

"When shall we sow, and how?" We care not, only scatter it with a liberal hand. Some like to sow it on their winter wheat early in the spring, when there is a little snow on the ground. Others prefer to wait till the ground and weather are warmer. Some few think it better to harrow the wheat after sowing the clover, thus covering the seed and benefiting the wheat at the same time. Others, again, and we think wisely, prefer to sow on a frosty morning in April, after all danger of severe weather is over. Sow in the morning till the sun thaws the ground, and repeat the operation the next frosty morning.

If sown with barley or oats, let the ground be made fine before sowing the clover seed, and then run a light harrow on the ground, or roll it after the barley is up. The shallower it is covered the better. It will do very well on a moist soil if not covered at all.

"How much seed per acre?" We think many farmers err in being too sparing of seed. Four quarts or eight pounds per acre is the usual quantity. We would never sow less, and unless the soil is in excellent condition, would prefer to sow another quart. The English farmers, especially on light sandy soil, not unfrequently sow from 16 to 20 lbs. of mixed clover seed per acre. Our soil and climate are so well adapted to the growth of red clover, that such extreme thick seeding is not necessary, but thin seeding is generally poor economy.

PLASTER FOR POTATOES.—In this section, we think plaster or gypsum a profitable dressing for potatoes. Sometimes it does little, if any, good; but again the effect is quite beneficial, and as the cost is slight, it is always worth while to sow a bushel or so per acre at the time of planting, or after the potatoes are up. In some experiments of our own, not yet published, the effect of plaster was quite beneficial, especially in arresting the ravages of the disease.

How to Sow.—Look at that field of wheat. You can see every sweep of the sower's hand. What is the reason? He let his hand fall down after leaving the seed-bag or hopper, instead of raising it before throwing the seed. It is the great fault in sowing. Raise your hand up level with your head, or nearly, before throwing the seed, and then it will be scattered evenly. In sowing clover or other small seeds, this is very important.

LORD PALMERSTON ON UNDERDRAINING.

LORD PALMERSTON, the present Prime Minister of England, has written a long letter embodying the results of his experience in draining. "This valuable letter," says the London *Agricultural Gazette*, "remarkable because it was written with instant dispatch in the midst of momentous matters of national importance, is to be published in the Journal of the Royal Agricultural Society, and we shall then see the grounds upon which our gifted Premier could descend from the high region of war and politics to cope with engineers within the precincts of their own Institution upon a subject peculiarly their own."

REMUNERATIVE PATENTS.

WHATEVER doubt the sceptical may entertain as to the superiority of the United States over Europe in art, arms, and literature, it is certain that in one thing, at least, they "whip all creation," and that is, in making patents remunerative. In this country, patentees are often content if, by means of a patent, they can obtain some slight advantage over a competitor in respect of the cost of production, never dreaming that the invention will be required beyond their own works. Others, again, will protect what they consider a good thing, and leave the world to find out its merits, never troubling themselves further than to reply to applications for the patentee's terms for a license to use the patent. And even those who patent with the view of pushing their inventions to the utmost, will not unfrequently reject all offers for the privilege of working under their patent. Thus opportunities are neglected or frittered away, which would not only bring large profits to the inventor, but the benefits to be derivable to the public for his discovery are retarded, or perhaps entirely lost, new circumstances arising to render the patented process altogether inapplicable. In the United States, however, patentees seem to have learned the art and mystery of making money to an extent scarcely credible by sober-minded Europeans; but that there is no romance about the statements, or exaggeration of the facts, which every now and then are published, is manifest, from the pecuniary interest of the inventor being to estimate his profits at the lowest sum consistent with truth.

It is only when an extension is required of an expiring patent that the profits of a patentee are brought to light. The extension is sought in the States or in this country on the ground of inadequate remuneration; and to prove this, a sworn statement of the outgoings and incomings has to accompany the petition. From such accounts we learned that the original patentee of the sewing-machine had realized the large sum of £97,000, which was deemed by the Patent Commissioner disproportionate to the benefits conferred by his invention on the community, and he therefore, became entitled to a renewal of his patent. In a recent number of the *United States Railroad and Mining Register* we find that the inventor of the reaping-machine, which carried off a gold medal at

the 1851 Exhibition, applied for an extension of his American patent, but failed, from not being able to prove to the satisfaction of the Patent Commissioner the inadequacy of his profits. From the filed accounts it appears that the receipts from his manufacturing business nearly touched \$4,000,000, and that his clear profits amounted to \$1,409,000. To realize this sum from an implement of such limited use as a harvesting machine, is to the European mind almost incredible, but the truth cannot be questioned.

There are other American patents which we know to have been more profitable than this; but we cannot call to mind one English patent that has yielded to its owner one-third of this sum. A singular case occurred, some years ago, of a patent, during the first year of the grant, producing a profit of £20,000; but having to do with dress, the fashion changed, and there was an end of it. The *Times* reviewer of Dr. Percy's book on Metallurgy, refers to Dr. Muntz's patent for yellow metal, or ships' sheathing, as one of the most lucrative patents known, and bases his assertion on the fact that its proprietor died leaving property that was sworn under £600,000. This is, however, an unjust conclusion of the value of the patent; for Mr. Muntz's evidence, adduced before the Privy Council, when applying for an extension of this patent, showed that his profits did not exceed £55,000.

Again, the enormous fortunes made by Sir Richard Arkwright and the first Sir Robert Peel give no satisfactory evidence of the value of the patents which helped them to those fortunes; for it is not unlikely the greater bulk of their profits was derivable from their prudent mercantile enterprise, which, if otherwise directed, would most probably have yielded them similar returns. The fact then remains, that American patentees possess a secret which European inventors have as yet failed to discover, but which, as we think, is deserving of careful investigation, both on account of the patentees themselves, and of the public; for we hold that, in respect of the extended working of an invention really worthy of the name, the interests of the patentee and of the public are identical.—We would therefore advise that, instead of ignoring statements which cannot be controverted, the proprietors of valuable British patents should seek to apply the means by which American patentees are enabled to bring their inventions so extensively into use, and instead of obstinately persisting in a course which has created the odious term of "obstructive patents," follow in the steps of their more "cute" consins.—*Newton's London Journal of Arts and Sciences.*

COWS—KICKING—CAUSE FOR IT.—It is a fact that stripping cows with a *perk* is one cause for their kicking; and another prominent cause is, the finger nails of the one who milks are long and sharp, or rough and scraggy. Please examine Biddy's or Tommy's finger nails, and pare them off smooth and nice before letting them begin to milk, and it will pay in two ways at least. We shall have more milk, and our cows will stand and be milked quietly. Who would not dodge if pinched with sharp finger nails?—BELA DUNBAR, *North Chili.*

SPIRIT OF THE AGRICULTURAL PRESS.

HORSE RADISH FOR CATTLE.—The *Homestead* says horse-radish is good for cattle and horses when appetite fails, and good as a medicine in various diseases in either. It is to be cut fine and mixed with potatoes or meal, or both.

LARGE HOG.—The Boston *Cultivator* says JOHN COOPER, of New Hampshire, killed a hog last December that weighed 733 lbs. He was nineteen months and twelve days old. Up to the 20th of June, he received no corn, and after that eat 27½ bushels.

HOGS PACKED IN THE WEST.—The Cincinnati *Price Current* has returns of the number of hogs packed at one one hundred and thirteen points in the West, which foot up comparatively as follows: in 1861, 1,568,083; in 1862, 1,868,782—increase, 300,699. The complete report will show an excess of fully 400,000. The crop will be the largest ever packed in the West.

APPLICATION OF MANURE.—N. REED, of Dutchess Co., N. Y., says in the *Country Gentleman*, that farmers in that section are becoming more in favor of applying their manure to grass land. The immediate effect is a diminution of the crops of corn and other grain, but in a few years the whole farm is increased in fertility. He advocates applying manure to grass land at the time of seeding. A heavy crop of grass is the result, and this, fed off by stock, he says, "is the best preparation for corn."

A THOUSAND PLOW PATENTS.—The New York *World* says: "It may surprise many of the multitude who use plows, as well as those who do not, to learn that about one thousand patents have been issued for alleged improvements in plows since the foundation of the American government. About two-thirds of these patents have been granted since the year 1847. Some curious investigator will doubtless mount this hobby, and give us a book about the origin and progress of the implement which the farming world is now trying to discard—if it can find anything better to use in cultivating the soil."

QUESTIONS FOR FARMERS.—A correspondent of the *N. H. Journal of Agriculture* asks the following questions:

Are raw potatoes wholesome food for an idle horse? Are they profitable to feed to a horse when they can be purchased at one fourth the price of corn?

Is corn fodder good feed for sheep? Will they winter well on corn fodder without hay? Can corn sown broadcast or in drills, and cut up while green and cured, be raised as feed for sheep at a less price than hay? What is the process and what the expense of curing an acre?

What amount of turnips will a sheep eat daily and profitably?

Would straw and coarse hay be more valuable as food for stock if made as fine as meal? By what means can hay and straw be ground?

SUPERPHOSPHATE OF LIME FOR TURNIPS.—For the last dozen years we have repeatedly recommended superphosphate of lime as a manure for turnips. When drilled with the seed the effect is most astonishing. We have seen numerous instances where it has doubled and tripled and quadrupled the crop, and even more. There is no manure equal to it for turnips. In the last number of the *Massachusetts Ploughman*, A. J. ALDRICH states that he put a little of Coe's superphosphate of lime on an eighth of an acre of French turnips, and left a small piece without any to see the effect. "The result was," he says, "that

I had a good crop of turnips where the superphosphate was used; but the turnips were hardly worth pulling where it was not used. The proportion would be about one pound of turnips where there was no manure, [superphosphate,] to eight pounds where there was manure." In other words, the superphosphate increased the yield eight-fold.

SAVE THE MANURE.—"Recollect," says the *Ohio Farmer*, "that every shovelful of manure wasted is a loss to your crops, and consequently to your pocket."

SITTING HENS.—The *Ohio Farmer* says, "always choose the evening hour for sitting a hen." The reason assigned is that the hen, having a natural desire for roosting and resting at this time, will take to her duty more contentedly than if set in the morning. This is new to us, but there may be something in it.

SAWDUST AS A MANURIAL ABSORBENT.—F. J. KINNEY, of Wayland, Mass., gives in the *New England Farmer*, an interesting account of his use of sawdust for bedding, as a fertilizer and absorbent. In January, 1859, he commenced hauling sawdust and fine chips from a clothes-pin manufactory. There were two horses, seven head of cattle, and several swine on the farm, and in course of the year he used 100 cords of this material as bedding for these animals. The stable floors were covered with it about six inches deep, and as fast as that under the swine and cattle became saturated with urine, it was removed with the solid excrement to the manure cellar. The horse-bedding and manure was piled under a shed. In both cases it soon began to burn or firefang—this was remedied by running water upon it, mostly from the eaves of the barn and sheds, by wooden troughs from the conductors, and by keeping it as solid as possible until drawn out for use.

Under a pair of steers kept for two months in the fall of 1859, at night, in a yard 14 feet square, he put one-third of a cord of sawdust three times a week. This laid until the next spring, when it yielded four cords of No. 1 manure. There was but little loss in bulk by decomposition—an increase in weight—a good deal of rain having fallen during the autumn. In his opinion, it can not be kept too moist, up to the point of leaching.

The stock which made 15 cords of No. 1 manure in 1858, made from 80 to 100 cords of No. 2 manure in 1859. The average time employed per cord was about three hours—in drawing, distributing, trampling and watering. The effect when applied to the soil, in comparison with barn manure, was fully equal, though not quite as lasting, and after the sawdust had lain two years, so as to become fully decomposed, it was considerably increased in value.

In closing his communication, Mr. KINNEY remarks: "Wherever I have examined the roots of a vegetable grown where sawdust, chip or leaves and stable manure had been used, I found them embracing with their delicate fibres every atom of the vegetable matter within their reach, and drawing their natural sustenance from them; and there is nothing I have ever tried as an assistant fertilizer that holds so much liquid or retains it so long, where only the air and sun operate upon it, as hard wood sawdust; and nothing that yields up this embry vegetable so readily to the petitions of the rootlets."

LICE ON CATTLE.—A correspondent of the *N. H. Journal of Agriculture* says kerosine oil is the best thing in the world for this purpose. It kills them quickly, and does not injure the hair or health of the cattle.

UNDERDRAINING.—A correspondent of the *Farmer and Gardener*, who visited Scotland last year, says: "Any one who wishes to learn the beneficial effects of underdraining, should go to Scotland, and see what has been accomplished there. Scotland can feed twice the number of persons now that it could fifty years ago—all by draining."

FLAX.—The same writer says that, "owing to the American war, preparations have already been made in England and Scotland to sow ten times the breadth of flax that ever was sown before; and it is said that the 'Gem of the Ocean,' Ireland, will have a fourth of its surface covered with flax next [this] year."

FARMERS SELDOM FAIL.—The Massachusetts *Ploughman* states that out of 1,112 persons who took the benefit of the late bankrupt act in that State, only 14 were farmers. In this State, 2,550 took the benefit of the act, and only 46 were farmers. The profits of agriculture may be slow, but they are sure.

SANDY SOILS CAN BE STIRRED TOO MUCH.—A correspondent of the *Farmer and Gardener* thinks the New Jersey farmers use the plow, harrow and cultivator too frequently, and the roller too seldom. Sandy soils are too full of air, and require much heavy rolling to make them compact and retentive of moisture.

"WHAT BRANCH OF AGRICULTURE WILL PAY?"—The Minnesota *Farmer and Gardener* says this is the great question of the day at the West, and the general answer is, to "raise less wheat and more stock, horses, sheep, sorghum, flax, etc." It is thought that sheep and wool growing afford good promise of profits.

NOW IS THE TIME TO BUY FRUIT TREES.—The New York *World* urges farmers to avail themselves of the present low price of fruit trees, to plant largely, and adds: "The demand for fruit is almost illimitable—increasing with the improvement of the supplies—and the prices for really good fruit pay enough to satisfy any man of intelligence and energy who applies himself to the cultivation of orcharding."

IMPROVED HORSE STALLS.—The Germantown *Telegraph* contains the following description of a new plan for laying the floors of horse stalls. It appears to be an excellent one. "It consists in making the horse stall floor level fore and aft, and with an obliquity of three-quarters of an inch from each side to the center of the floor, where there is an opening made in the floor half an inch wide and six feet in length, or from a line of the back stall posts towards the manger six feet. The plank of the floor is laid crosswise of the stall, the plank being cut in two in the middle, and so laid that the ends are a half inch apart, thus forming the opening which I have described. This opening is provided for dropping the urine directly through the floor, instead of allowing it to flow on the floor from where it falls to the back end of the floor of the stall, thus wetting the greater portion of the floor, and when the horse lies down, wetting his body and

clothing, and especially his tail; for there is generally no provision made for conveying the urine farther than the rear of the stall.

"I place a galvanized sheet iron urine gutter under the opening in the floor, which has obliquity in itself, the manger end being two inches deep, and the discharge end six inches deep. It discharges into a plank urine gutter six inches deep and ten inches wide, which runs along behind the stalls under the floor, and is carried by a loose floor plank, which may be taken up at pleasure and the gutter cleaned out. This gutter has a good descent, so that the urine is discharged from it, but some dirt and refuse will get into it through the narrow opening in the stall floor. All the attention that my arrangement requires daily, is just to pass the fork tines through the slat in the floor.

"Those who use my improvement say that the bedding will keep drier and cleaner for forty days than it will for four as ordinarily arranged. The iron gutter costs \$1, and the wooden gutter behind the stalls and under the floor will cost about 75 cents per stall; otherwise this arrangement costs no more than the common way."

LOSS OF CATTLE IN CALIFORNIA.—The *California Farmer* of Feb. 7th says: "The late severe cold weather has destroyed a large amount of cattle, sheep, and swine. We have information from all sections, of quantities of stock, that has perished by the cold, and the late floods, and as the short fed stock were poorly prepared to stand the severe cold weather, they have perished by the hundreds of thousands. Sheep have also perished in lambing, by reason of the severe weather following the exposure to the flood—and swine also. Horses, also, have perished. It is to be hoped that the trials and losses of the year will teach lessons of wisdom, and induce stock owners to be merciful to their stock, provide them with shelter for the wet season, and raise food for winter feed, such as root crops, and the saving of fodder that for years has been burned."

WHEN TO PLANT SORGHUM.—The Bucyrus (Ohio) *Forum* contains an article from the Rev. A. MYERS of that place, in which he states that the experience of forty persons of his acquaintance demonstrates that *early planting* is not practicable. "Of all the experiments from the last of April until the 10th of May, not one matured; those from the 10th of May until the 20th were ripe, or nearly so; and all, without exceptions, from the 20th of May until the 1st of June were perfectly matured, demonstrating, conclusively, that the latter part of May is the best time to plant." It is absolutely essential to success in making sugar, he says, that the sorghum should be fully matured, and as early planting is not safe, he thinks we must have some preparation to bring the seed up speedily. What that is, he professes to have discovered, and will announce in time for planting. We hope he will do so.

DRAUGHT HORSES IN THE WEST.—A correspondent of the Minnesota *Farmer and Gardener* urges the farmers in that State to raise more draught horses—not slim-shanked racing horses. Thousands of dollars have been wasted in trying to raise the latter, while substantial draught horses will sell in any market, and will pay.

MANAGEMENT OF HONEY BEES.

APRIL is the month, in this climate, to remove bees confined in buildings, cellars, etc., to their summer stands. Let it be done just as soon as the weather becomes mild, and the ground free from snow.

If it is convenient to set each hive where it stood last season, it is well to do so; but it is not at all necessary, as the bees take a new survey and marking of the positions of their hives after a winter's confinement, and a new position appears to be just as good as an old one. But be careful to set the hives where no change of position will be necessary, till again removed to winter quarters. When cases do occur in which it is necessary to remove hives a few feet, after being placed in position for the season, it should be done by degrees, a few inches at a time. If a hive stands by itself, or five to ten feet from any other hive; it may be removed several feet at once with safety; but when hives are placed in rows, side by side, with about a foot of space between them, as is frequently the case, it would produce great confusion and loss of bees, to move the hives laterally, so as to trench on the original position of each other. In such a case, the bees of the different hives would become badly mixed, and many would be killed in the battle that would ensue. In a few days they would become regulated again, but with greatly diminished numbers.

If I were under the necessity of removing bees in such a case, I should do it by moving the hives a few inches daily, till I gained the desired position.

Hives may be moved *back and front* a foot or two daily, without derangement to the bees; and where no other hives exist in close proximity, they may perhaps be moved ten or fifteen feet at once, and all the bees will find them readily.

When bees are removed from their place of wintering to their stands, the first operation performed by them on their sallying out, is to *mark the position of their hives*. This is done by a series of circular flights, with which all bee keepers, I presume, are familiar. On these occasions the position of the hive is marked with such accuracy, especially the entrance of it, that if removed only six inches, the bees, on their return from the fields laden with pollen or honey, alight exactly where the entrance *was*, not where it *is* on their return. From this circumstance, it is shown that the color, size or shape of the hive has nothing to do with the correct return of the bees to their own tenements. A row of hives may be so alike that no man can discern the least difference between them, and they may stand within a few inches of each other, yet the bees will seldom make a mistake and enter the wrong hive. Even if a white hive be substituted for a black one, or *vice versa*, the bees in the fields while such changes made, would return with the same unerring exactness to their hives as if no such change had taken place.

It appears that the transposition of hives, or their removal to new localities, is not attended with much loss of bees at any time after cold weather sets in, while the bees are confined to their hives by the severity of the weather. Last fall, the last of November, on protecting my bees for the winter, I moved the hives to a new location, mixing them without any regard to their previous position, supposing that cold weather had set in for the season, and that

my bees would not leave their hives again till spring. But unfortunately in a few days after the hives were arranged, and protected with a packing of straw, a warm spell of weather set in, and the bees became uneasy, and began to escape through the straw in such numbers that I was compelled to uncover the hives in front, and allow the bees to sally out. They had previously been confined to their hives by cold weather about ten days, which led me to think that they would mark the positions of their new stands, and a less number of bees would be lost by fighting, in consequence of getting mixed, than would occur if they had not been thus confined to their hives. In this opinion I was not mistaken. I noticed but very little confusion in the bees by not entering their respective domicils; perhaps a quart of bees were killed only in fifty hives, and after the second day of issuing they had become perfectly "at home," and no further loss was sustained. In this case, the hives were placed as close together as they could be set, and were mostly removed several rods from where they stood during the summer.

The result of this operation is of some interest to bee keepers, as it shows that bees may be removed with safety and the hives placed in any position, without much loss, after cold weather has set in, and the bees have been confined a week or two to their hives by the severity of the atmosphere, even if they sally forth in large numbers as soon as removed.

In this month, the stands or bottom boards of the hives should be cleaned of all the foul accumulations of winter, and the combs examined for the purpose of removing any dead bees between them, which is best done by the feather end of a quill. Mouldy combs should be cut out, and such families as are short of honey should be supplied with honey in the comb, strained honey, or a syrup made of sugar. This should all be done on removing bees from their winter quarters, when they are wintered in a separate location from their summer stands.

The hives should rest closely upon the bottom boards till very warm weather sets in, about June 1st in this climate and earlier in more southern latitudes, when they should be raised *three-eighths* of an inch all round.

The moth worms that occasionally appear in April and May need not create the least alarm in the mind of the inexperienced bee keeper, as these pest are found more or less in all families of bees. They should be destroyed when seen, and a watch kept for their cocoons, in which they wind up as silkworms do, and come forth a winged miller, which is far more dangerous than the original worm.

While I do not advise bee keepers to spend much time in ferreting out the hiding places of moth-worms, it is not amiss to lay split elders, or anything having a hollow groove or cavity on the under side, upon the floor boards of the hive, under which the worms will take refuge, and may thus be easily destroyed. It is also advisable to raise the hives about once a week from April to June, and destroy such worms as may be found under the edges of them.

There is no necessity to place the boxes or caps for surplus honey in their positions till next month; but be sure and get them on early in May, and attach a small piece of empty comb in the corner of each box, which causes

the bees to commence filling the boxes sooner than they would do if no such combs were placed there. Take new combs of last year's make, and cut into pieces about two inches long and one inch or less thick—the lower edges of combs being best. Then melt some beeswax, take a stick with a rag tied to the end, about as large as a walnut, and first lay a coating of hot wax upon the place where the piece of comb is to be cemented, then dip the edge of the comb to come in contact with such coating quickly in the wax, and place it in its position before the wax has time to cool, and it will adhere firmly. You can give direction to the store combs in the caps, by placing these small pieces of comb lengthwise, as you desire the combs to be built.

It is not a difficult matter to attach pieces of comb in boxes that are closed, with no opening except the holes through which the bees pass. In such cases, the pieces of comb should be no larger than will easily pass through the holes, and the placing in position is to be done with the swab, the stick above referred to.

Clinton, N. Y.

T. B. MINER.

ITALIAN BEES.

EDS. GENESEE FARMER:—The February No. of the *Genesee Farmer* contains an article on Italian honey bees from Mr. T. B. MINER, which, it strikes me, is so much at variance with the spirit which characterizes the contents of your valuable journal, so inconsistent, and displaying such ignorance of modern bee literature and physiology, that one would suspect the writer had confined his reading strictly to his own book on the Honey Bee, which, valuable as it is, does not exhaust the subject. As many place deservedly high confidence in Mr. MINER's practical skill, they may be led astray by his statements in the article on the Italian bee.

For the sake of brevity, I will go over the same ground without referring to his statements. Those interested in the subject may, by comparing our statements, judge for themselves which article is best supported by facts, and which is written in the best spirit to advance truth and dispel error.

Families of Italian bees, as well as queens, have been offered for sale, by advertisement, by several parties for more than a year past; but from the extra risk and expense attending transportation of families on long journeys, we do not advise their purchase.

There was never "*speculation*" or "*humbug*" in the importation of the Italian bee, either into this country or into different parts of Europe. As early as 1849, a few families of Italian bees were imported into Germany by amateurs. They were kept and bred by scientific men, who had made bee culture the study of their life, and not a business; and they employed this most interesting insect to elucidate some of the most important and interesting truths in the mysteries of bee life. (See the writings of DZIERZON, BORLEPSCH and SIEBOLD.) At DZIERZON's apiary, and aided by him, the learned and renowned SIEBOLD armed himself with facts which made clear the existence of true parthenogenesis in bees by experiments with both the black and Italian honey bee. Whilst DZIERZON was conducting various experiments, which extended over several years, and which could only be

carried on by the presence of the two races together, he and other observers noticed striking differences in favor of the Italian race, and then a natural and legitimate desire arose to obtain them. Since 1849, much has been written about them by highly educated men in Germany, England and France. Mr. LANGSTROTH was, I believe, the first to publish an account of them in this country, and, if I mistake not, it appeared in the first edition of his valuable work, translated by his friend Mr. SAMUEL WAGNER from the *German Bienenzeitung*. Each subsequent edition contains a more minute account of them. Since Mr. LANGSTROTH's first notice, a growing interest has existed in this beautiful and useful insect, which induced several gentlemen to import them; among other attempts, the Patent Office at Washington, which effort, I regret to say, was unsuccessful.

I would here, for the public good, demand of Mr. MINER proof that the workers can, "*at best, be only half breeds*." This shows that he is either ignorant of the physiology of the bee, as given by the highest modern authorities, or that he discards their views. I never part with a queen until I have seen her progeny, and know them (the progeny) to be *full blooded*. Owing to the distance queens fly when on their "first excursion," it is necessary, in order to insure a certainty of having a majority of Italian queens purely impregnated, to have command of all the native bees for at least two miles distant. This, of itself, involves considerable trouble and expense, which, together with all the expenses—first cost and importation—is such that it must take several years for an importer to realize from sales at any price his first season's outlay, if ever he does it.

DESCRIPTION, ETC.—This peculiar bee exists only on the southern slopes of the Alps, in Lombardy and Southern Switzerland. I say *only*, for in no other part of the world is this species found as a native. It is marked distinctly with three light yellow bands, and is therefore entirely different in external appearance from the common black bee. It is about one-ninth larger than the black bee, if hatched in cells of its own make. As to its superior qualities, although attested by the highest authority, I may add my own experience. I find them stronger, more hardy, and more laborious than the black bee. In the early morning, before the black bee is to be seen, they are out at work, and in the evening, when all is quiet about the black hive, you will still see the Italian worker returning to her home.

On cloudy mornings and windy days they show more courage; you will then see twice as many Italians active as others. Their strength is superior beyond question, and they will invariably commence to rob the black hive first, if placed in their vicinity; whereas, I have never in my experience seen the black hive attempt to rob an Italian colony.

The reason that this species has only of late years come into renown, is from the fact that the region in which this bee is exclusively found is not much in communication with the other parts of Europe, being very mountainous, and not traversed by general highways, rivers and railroads.

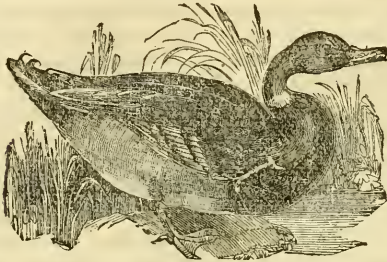
C. WM. ROSE.

No. 68 Exchange Place, New York.

DUCKS AND THEIR MANAGEMENT.

C. N. BEMENT, an acknowledged authority on poultry matters, writes:

Any calculation as to the return to be expected by those who keep ducks turns entirely on the possession of a suitable locality. They are most likely to be kept with profit, when access is allowed them to an adjoining marsh or water meadow, where



MALLARD OR WILD DUCK.

they are able in a great measure to provide for themselves; for if wholly dependent on the breeder for their living, they have such ravenous, insatiable appetites, that they would soon, to use an emphatic phrase, "eat their heads off." No description of poultry, in fact, will devour so much or feed so grossly.

But certain moderate limits are necessary for their excursions, for otherwise they will gradually learn to absent themselves altogether, and acquire semi-wild habits, so that when they are required to be put up for feeding, or immediate sale, they are found wanting. Ducks, too early allowed their liberty on large pieces of water, are exposed to so many enemies, both by land and water, that few reach maturity; and even if some are thus fortunate, they are ever after indisposed to return to the discipline and regular habits of the farm-yard. They may be kept in health in small enclosures, by a good system of management, though we fear not with profit—which is the point to which all our advice must tend.

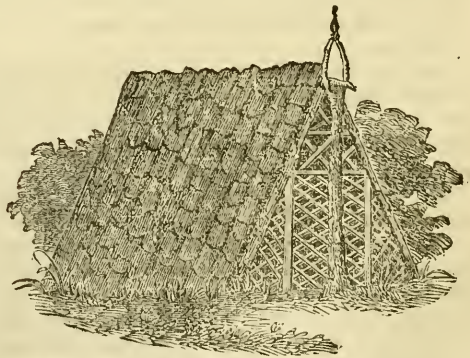
A drake and two or three ducks will cost but little to maintain, and will do incalculable and unknown service by the destruction of slugs, snails, worms, and the larvæ of gnats and other annoying insects. The only trouble they will give, is, that if there be much extent of water or shrubbery about their home, they will lay and set abroad, unless they are got up every night and confined, which should always be done; otherwise they will drop their eggs carelessly here and there, or incubate in places where their eggs will be sucked by carrion crows or skunks, and half their progeny destroyed by weazels or rats. In the neighborhood of large pieces of water, or wide-spreading marshes, this will be either impossible or attended with more waste of time than the ducks are worth.

Ducks are much more prolific than they have credit for, and, even for eggs, can be made a profitable bird, if well fed and properly managed. Any common duck so treated, if not old, will yield in a season one hundred or more large, rich, delicious eggs. When they lay, it is daily or nightly, and if kept from setting (which is easily done by chang-

ing their nests frequently), they will lay with little interruption from March until August. But the trouble is, a duck lays only when eggs are most abundant, while hens' eggs may be procured at all seasons.

A single drake is sufficient for six to eight ducks. If well fed in winter, and lodged in a comfortable, dry place, they begin to lay the latter part of March or first of April. They must then be closely looked after, for they are very careless and deposit their eggs wherever they happen to be—in the water, in the shady and secluded places, even after having concealed them from the person who has charge of them; they hatch them secretly, and some fine morning bring their young brood to the house to ask for food without requiring further trouble. It is prudent, when the spring is at hand, to give them food three or four times a day, but little at a time, but always in places where it is wished they should lay, and in placing their nests where they once have lain.

Where they are kept in considerable numbers, they should have accommodations of their own. The duck-house must be secure at night against prowling animals, such as foxes, skunks, weazels and minks. The walls and roof should be low and thickly thatched with straw, for warmth in winter, with the necessary openness for ventilation, and ingress and egress of the ducks. The construction of a piece of rustic work like the above figure (which we take from "Brown's Poultry-Yard"), after selecting the situation, can easily be made by any person accustomed to the use of the saw and the ax. All that is required is a little taste, having your plan well digested before commencing, so as to require no alterations. Join four pieces of saplings in an oblong shape for the sills; confine them at the ground, erect at the middle of the two ends a forked or crocheted post, of suitable height, in order to make the sides quite steep; join these with a ridge-pole; rough-board it from the apex downward by the sills to the ground;



A DUCK HOUSE.

then cover it with bark, roughly cut in pieces a foot square, laid on and confined in the same manner as ordinary shingles; fix the back end in the same way, and the front can be latticed with small poles with the bark on, arranged diamond fashion, as shown in the sketch—a part to be made with hinges for a door.

Something like this, placed on a bank, or small

island of a lake, pond, or small stream, and half covered with vines or shrubbery, would make a very pretty home for aquatic birds. The size of the building may vary according to the wants of the owner. Laying and setting boxes may be placed at either or both sides of the building, under the roofing, on the ground.

They should have a place separate from other fowls, on account of the great difference in their habits. When circumstances will permit the arrangement, we recommend having the house adjoining the pond, which should be enclosed. The laying ducks should have plenty of room for the sake of cleanliness, and should never share the habitation of geese, as the ducks are liable to persecution. When accustomed to be fed in the house, they readily present themselves at the proper time; in the morning they get their feed apart from the geese and fowls—in which case they are not persecuted by the former, nor pilfered by the latter; and thus, too, their eggs are secured with far greater certainty, since the birds are not released from their enclosure till after the hour which usually witnesses the deposit of their eggs. The duck generally lays at night or early in the morning, and is usually disposed to lay away from her house; but by our plan many eggs are secured which otherwise would have probably been lost.

A strong desire for the selection of her own nest is generally found to influence the duck; but this is mainly the case as the time draws near for incubation. Wood is seldom secure against rats, and does not so well suit the cleansing process of water and the lime brush, and few places require their application more frequently.

Do not crowd your birds, and always arrange for good ventilation. When the flock is large, separate the young ones, that they may thus have the advantage of better food, and that no risk may be incurred of finding the eggs of the older ones trodden under foot and broken, at your morning's visit. On this account, the laying ducks should always have plenty of room, and be kept by themselves.

REARING AND FEEDING THE YOUNG.

The best mode of rearing ducklings depends very much upon the situation in which they are hatched. On hatching, there is no necessity of taking away any of the brood, unless some accident should happen; and having hatched, let the duck retain her young upon the nest her own time. On her moving with her brood, prepare a coop and pen upon the short grass, if the weather be fine, or under shelter, if otherwise; a wide and shallow dish of water, often to be removed, near by them. Their first food should be crumbs of bread moistened with milk; curds, or eggs boiled hard and chopped fine, are also much relished by, and are good for them. After a few days, Indian meal boiled and mixed with milk, and if boiled potatoes, and a few cives or lettuce chopped fine be added, all the better. All kinds of sopped food, buckwheat flour, barley meal and water mixed thin, worms, etc., suit them. As soon as they have gained a little strength, a good deal of pot-herbs may be given them, raw, chopped fine, and mixed with a little bran soaked in water, barley and boiled potatoes beat up together. They are extremely fond of angle-worms, grubs, and bugs of all kinds, and for

which reasons they may be useful to have a run in the garden daily. All these equally agree with young ducks, which devour the different substances they meet with, and show, from their most tender age, a voracity which they always retain. No people are more successful in rearing ducks than cottagers, who keep them for the first period of their existence in pens two or three yards square, feeding them night and morning with egg and flour, till they are judged old enough to be turned out with their mother to forage in the field.

It is necessary, to prevent accidents, to take care that the ducklings come regularly home every evening; and precautions must be taken, before they are permitted to mingle with the old ducks, lest the latter should ill-treat and kill them,—though ducks are by no means so pugnacious and jealous of new-comers, as common fowls uniformly are.

FARMING NOW AND THEN.

WHEN this deponent came to little Seneca in 1821, all the good farming here was confined to growing the largest fields of wheat of the best quality from the then virgin soil. The man who then sold the most wheat from his farm was called the best farmer; he, of course, grew a large patch of rye to feed with the cut straw to his heavy German plow horses; but his corn field was then small, always neglected, and very weedy, so that he rarely harvested more than corn enough to fat pork for his family. Farmers who then harvested 600 or more bushels of wheat, rarely ever kept more than two or three cows, and poor ones at that—only a few rough sheep to make the wool for the linsey woolsey and fulled cloth of the family. But all that is changed now—thanks to the advent of the wheat midge for jostling the farmer out of the old track of depending on the wheat crop as the only paying product of the farm! Being thus driven by a mysterious insect from continuing to grow wheat after wheat, to a more general and varied system of husbandry, grass and clover growing, and stock raising has enabled the farmer to grow large crops of Indian corn, oats, potatoes, etc., with a manure pile continually increasing, and also extra rich in plant-food; so that at this time, as the midge leaves us, the wheat crop is again very profitably included in the judicious rotation of the farm.

During the late long continued good sleighing, in driving along the western shore of the Cayuga, I was delighted to see the great improvements that have been made in the last thirty years. In every farm yard we passed, instead of a few straw-fed cows and pot-bellied yearlings, and a leaky log shed, as of old, we now see the ample yard enclosed on two sides with deep shingle-roofed sheds, which now shelter well-conditioned bovines of improved breed, and fine-wooled sheep, all up to their knees in straw, but not straw-fed. The extra large, painted, and blind-ventilated barn is full of well-cured fodder and grain; and the tall stacks of dark-looking, but early, well-cured clover hay near by, gives an earnest that the farmer knows how to feed his soil, as well as his stock.

If the farm house does not bring to mind the chaste specimen of Grecian or Gothic architecture,

and its surroundings are somewhat crude or deficient in sylvan or floral decoration, you feel assured that there is both comfort and plenty within, and that all its inmates are ever happily exempt from that conflict between pride and poverty, which is so often the plague of the domestic circle, except in rural life on the well managed farm.

Waterloo, N. Y.

S. W.

CARROTS AND OTHER ROOT CROPS.

EDS. GENESEE FARMER:—In the *Farmer* for March, "O. R." writes urging the value of the carrot, and the importance of its culture, valuing the carrot above other roots, while admitting the high value of turnips, etc., and giving good, sensible directions for the cultivation. The cause he advocates is a most worthy one. The farmers of all parts of the country would surely profit largely by growing more roots—profit in several ways—in economy, in the health of their stock, and in the increased value of manure, while insuring clean tillage, because a good root crop (potatoes excepted) cannot be grown without. But I fear that he is too eager an advocate, and incline to think that "roots" have been pronounced a "humbug" by many who have undertaken to grow them after reading just such promises as to their yield and value, and that all who sow carrots with the idea of getting 1,200 to 1,500 bushels per acre, three bushels equal in feeding value to one of corn, will be disappointed.

First, as to the yield. Nine years trial give me 600 bushels as a good average crop, with clean, careful field culture, plenty of manure, a good sandy loam, the crop taking its place in the regular rotation—much larger crops, on land devoted specially to this crop, and tilled like a garden, with a foot of good loose soil, and manured every year abundantly—in one case, 400 bushels from a quarter acre; but I never found another piece of land on my farm that would do it. It is, however, to be noted that the carrot can be grown for many years on the same land if manured, with a constantly increasing yield.

Second, as to feeding value. BOUSSINGAULT makes the nutritive value of 382 lbs. of carrots, or say $6\frac{1}{2}$ bushels of 60 lbs. = 676 of Swedes, or say $11\frac{1}{2}$ bushels = 70 lbs. of Indian corn = 100 lbs. of hay—a result, I think, no farmer will acquiesce in. FRESSENIUS, 542 lbs., say 9 bushels of carrots = 100 lbs. of hay = 391 lbs. of mangold. The average of seven experiments in Germany makes 280 lbs. of carrots = 346 of mangold = 100 of hay; and four of the same set of experiments average the result that 262½ lbs. of Swedes are of the same value,* the other experimenters not having included this root in their lists. Let us be cautious in deciding where doctors disagree, so much as they do on this question. For myself, I think two quarts of corn meal, or four of ground oats, a higher daily allowance for a cow than a half bushel of carrots or turnips, and that 8 bush. of carrots are no more than equal to one of corn or two of oats. On the other hand, the roots are more wholesome, and have a health-giving value that can not be over estimated.

Third, as to the comparative value of carrots and other roots. For young horse stock, I consider a few carrots a necessary almost. For cattle, bushel for bushel, I would as lief have Swedes; but, of course, this is only my insignificant opinion.

Fourth; although I would never be without a few carrots, I prefer either the Swedes or the mangolds, because I can grow these roots in my regular rotation, whereas carrots require rather a petted piece of ground; because the culture of the other roots is easy, while the carrots, owing to their puny growth at first, are difficult to till and easily injured; besides, they are so slow of germination that the weeds are apt to get the start of them; because I can be as sure of 750 to 800 bushels of Swedes as 600 of carrots, or even 500, and can use green manure. As to the fly, a little superphosphate, or well prepared fine bone dust compost, makes the turnip crop safe, and pays in the next crop.

Lastly; let us have lots of roots; but if a man wants 1,200 bushels of carrots, he had best plant two acres, and take good care of them. P. Q.

CULTIVATION OF POTATOES.

ONE would suppose that at this late day, it would be difficult to say any thing in regard to potato culture that is new or worth reading. Well, it is so in a great degree, yet we do not appear to know any more in regard to the best methods of culture than people did fifty years ago. It was a prominent question then as now, "*Are small potatoes as good for seed as large ones?*" We are also undecided, as we were in "old times," whether it is best to plant in *hills* or *drills*, or furrows, as is done in many places. But farmers are quite as eager to learn how to cultivate this crop, as they would be, apparently, if it were a new vegetable just introduced to the rural public. One says, "I'm utterly discouraged with potato culture; I frequently get but little more than the seed I planted, and half rotten at that." Another remarks, "I generally have dug my potatoes late in the season, and have had a great many diseased ones; but this year I dug early, and lost nearly the entire crop;" while a third exclaims, "I dug early, and seldom lost any by disease; but I was induced to leave my crop in the ground last fall till the middle of October, and when I went to dig 'em, they were all gone, except a few not worth the expense of digging."

Now, what are we to do under such a state of disagreement and uncertainty? I think I can lay down a few brief rules, that can safely be followed by all persons engaged in the pursuit of agriculture.

First, plant fair, medium sized potatoes, and plant *early*, just as soon as the ground can be properly prepared. Plant in hills or drills, but the furrow system, placing the seed about ten inches apart, a half or whole potato, with manure, when used, *course*, and *over* the seed, will generally give a greater yield per acre, than when planted in hills. In both cases the manure should be top of the potatoes.

Second, let the furrows or hills be deep, so that the seed will lie full six inches below the surface of the soil. I find that potatoes rot less when deep in the soil, than when near the surface, yet this

* *Cultivator* for July, 1861. Table taken from FLINT on Dairy Farming.

may not always be the case; but *six inches* is the established depth of those who have experimented on potato culture in Europe with the best success.

Third, dig in October; no matter what you have heard or read, the great preponderance of testimony goes to show that late digging is the best. There are, undoubtedly, cases in which the reverse of this seems to be true, but the practice of growers of this crop, since it became diseased, goes to show that digging in *September* is bad policy generally.

T. B. MINER.

REMOVING MANURE FROM STABLES.

EDS. GENESEE FARMER:—A correspondent in your paper, not long since, said, "Put plenty of straw in the stables for bedding, and then put extra sideboards on your wheelbarrow to remove the manure from the stables." Now, I think the first advice very good; where straw is plenty, put it in the stables to the horse's belly; but, then, a wheelbarrow, even with sideboards, is of little account where there are three or four large stables to clean out. We use a sled, made by putting together two boards or planks about ten inches broad and some six feet long. We simply bore about five quarter holes in each plank. The first holes are to put the breast chains through, to haul it by—so that we need no swingle-tree. In the other holes we put cross bars, about six inches shorter than the breadth of our door; then by putting a short rope or chain to the rear of the sled, we draw it backwards into the stable, put on a load as much as a horse can well draw, drive to where you wish it to lie, throw it off and drive back for another load, putting the manure from the horse stable where that from the cow stables was last put, so that it may become mixed, which is a very important item in managing the manure heap. Or, which is still speedier and easier, get a horse hook, made out of inch square iron prongs, fourteen inches long, handle two feet long, with a ring in the end to hook your spreader, and having three prongs one foot apart, made by welding the three prongs together near the end where the ring is. You may have a ring on the top of the middle prong, to lift it out when you wish to unload. When you wish to load, drive it in with a wooden maul or mallet; then start your horse, and you will be astonished at the speed with which you can clean a large stable, where you use straw enough to make the manure adhere together.

H. S. KINDIG.

Westmoreland Co., Pa.

THOUGHTS ON READING THE JANUARY No. OF THE GENESEE FARMER.—It is pleasant to read the results of scientific experiments, and particularly in regard to growing grass, in which department there have been so few reliable and exact results recorded in this country. Ashes, and even coal ashes, are good fertilizers, and as shown by your figures to be nearly equal to the more costly articles, and brings to my mind that for two years past I have burned coal, and having thrown the ashes the first winter around a pear tree, during the summer the red-clover came up and grew luxuriantly where for years there was none, or very little, to be seen. I saw no improvement in the pears.

The article on soluble food struck my fancy as being valuable, and if practiced to considerable ex-

tent, we should see fewer horses stiffened by founder.

The subject of tight barns might, with profit, be discussed by our agricultural clubs throughout the country, and I think it an open subject, and as the old barns are rapidly giving place to new, now is the time.

The subject of churning is well treated, but the cows, which give or make occasion for the use of the churn, and the science of churning at all necessary, are not even mentioned, or how they should be treated. The winter fare of the cow influences the use of the churn to a great extent.

—D., Gates.

CHAFFING HAY AND CORN STALKS ECONOMY.

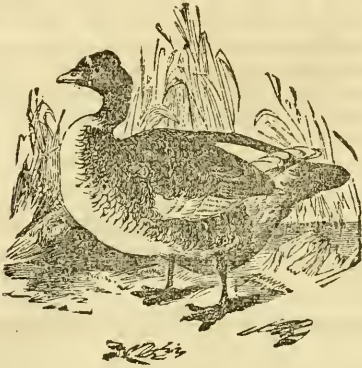
A GREAT deal of *pro* and *con* has of late been published on the economy of chaffing corn stalks and hay as food for bovines and horses. The veteran JOHN JOHNSTON says he has tried it, and the increase did not pay the matting; and for the same reason he never grows a patch of roots for the delectation of his milk cows in winter. But what is fair economy for Mr. JOHNSTON on his large and very productive farm, should not be practiced by the small farmer who is at less expense for labor, and is necessarily obliged to make the most of every vegetable product.

In the March *Farmer*, we read of a Connecticut farmer who has brought up a worn out farm to keep thirty head of bovines, that would keep only six or eight head before. He not only chaffed his well saved stalks, but he steamed them also, with meal, oil cake, bran, etc.; soiling his cattle in summer, by which means he was enabled to make 750 loads of composted manure yearly. This not only manured his corn, but top-dressed his meadows.

But there is an advantage gained to the wheat-growing farmer in the fineness of the manure from cut feed. JOSEPH WRIGHT of Waterloo had a field of 20 acres of the fairest white wheat grown the past season in this country; while all other crops were short from freezing, his was saved by a liberal coat of fine manure from cut stalks, which formed a mulch for the wheat, thus performing the office of the leaves and vegetable humus of a new clearing.

At almost all the large livery stables in New England and New York, the hay and stalks fed to horses is chaffed fine and treated with ground corn, oats, etc., by which a great saving is made in hay, which in all large towns is much dearer than grain in proportion to its nutriment. It is said to have been fully ascertained by repeated experiments in England, that nineteen pounds of cut hay will take the place of twenty-five pounds in the long state.

A pains-taking correspondent of the *Country Gentleman* writes that at all the omnibus and railroad stables in New York, the hay is cut fine and mixed wet with corn and oats ground, in the proportion by measure of three measures of corn to two measures of oats, the proportion varying only with the market price of the grain. The proportion fed of cut hay to grain is generally nine pounds of hay to seventeen of grain, averaging ten quarts of meal a day to the largest horses. At the Sixth Avenue stables, where the horses do not average over 1,000 lbs. each, 6½ lbs. of hay and 15½ lbs. of meal keeps them in fine order. s. w.



GEESSE.

OUR esteemed correspondent, C. N. BEMENT, writes as follows in regard to geese:

Of all the domestic birds, none are so profitable as geese, where there are facilities for keeping them; for there are none that can do so much for themselves when alive, and none that come to so little waste when dead. Unlike the fowl, all parts of the goose are equally good. Besides which, every feather is of value, greater than that of every other of our domestic birds. Every housewife knows how to appreciate beds made of their feathers; and in these days of steel pens, the goose still possesses quills. When young, the goose is a popular dish on the table, and most esteemed by the epicure. How is it, then, that the goose is not more popular with the farmers? It can only be accounted for by the fact—for fact it is—that it is not in every one's power to keep them.

The chief requisites for keeping geese, are a pond of water and a pasture for grazing. The latter is essential, as the bird is graminivorous as well as granivorous. An occasional cabbage leaf will form an acceptable variety of food, and during the winter any spare vegetables will help to supply the deficiency of the pasture. If fed high, some varieties of geese will often lay in autumn, but the advantage of a brood of goslings in November is questionable.

In allowing geese to range at large, it is requisite to be aware that they are very destructive to all garden and farm crops, as well as to young trees, and must, therefore, be carefully excluded from orchards and cultivated fields. It is usual to prevent them getting through the gaps or holes in fences by hanging a stick or yoke across their breasts.

They are accused by some of poisoning the grass, and of rendering the spots where they feed offensive to other grazing stock; but the secret of this is very simple. A horse bites closer than an ox, a sheep goes nearer to the ground than a horse; but after the sharpest shearing by sheep, the goose will polish up the turf, and grow fat upon the remnants of others. Consequently, where geese are kept in great numbers upon a small area, little will be left to maintain any other grass-eating creature. But if the commons are not short, it will not be found that other grazing animals will object to feeding either together with, or immediately after a flock of geese.

It has already been said that geese are much given to grazing, but we have not said that they

improve the pasture. This, however, is the case, although there is an old proverb to the effect that nothing *will* eat after a goose—whereas the auxiliary verb should be *can*, and not *will*. The fact is, the goose will thrive on a pasture so short that a goat would starve on it; and the consequence is a short, sweet herbage.

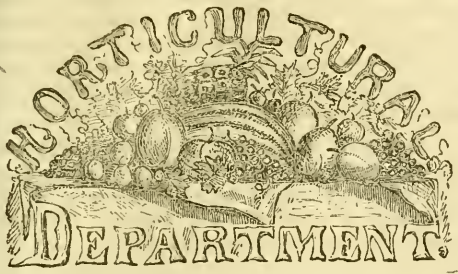
Although water is the natural element of geese, yet it is a curious fact that they feed much faster in situations remote from rivers or ponds. They should not be allowed to run at large when they are fattening, as they do not acquire flesh nearly so fast when allowed to take much exercise. It is stated that geese can be raised, in a proper situation, at a profit far greater than almost any other stock. But to do this, more attention is required than is usually bestowed on their keeping and management. Like other fowls, they may be brought by proper management to a great degree of fatness; but the period at which they are the fattest must be chosen to kill them, otherwise they will rapidly become lean again, and many of them would die.

Geese may be fattened at two different periods of their lives—in the young state, when they are termed "green geese," and when they have attained their full growth. The methods at each period are very nearly the same. A goose diet, for the first two weeks, is formed of oats and water mixed in a trough; after this, the food is gradually changed to barley meal mixed with water, of the same crumbling consistence that has been recommended for the goslings, the water being given separately in small quantities. Steamed potatoes, mashed up with four quarts of buckwheat or oats, ground, to the bushel, and given warm, is an excellent diet, and will render geese, cooped in a dark place, fat enough in three weeks.

HABITATION.

In selecting a situation for a goose-house, all damp must be avoided; for geese, however much they may like to swim in water, are fond at all times of a clean, dry place to sleep in. It is not good to keep geese with other poultry; for when confined in the poultry yard they become very quarrelsome, and harass and injure the other fowls; therefore it is best to erect low sheds, with nests partitioned off, of suitable size to accommodate them; and there should never be over eight under one roof. The larger ones generally beat the smaller, in which case they should of course be separated, one from the other, by partitions extending out some distance from the nests. The nests for hatching should be made of fine straw, of a circular shape, and so arranged that the eggs can not fall out when the goose turns them. From fifteen to seventeen eggs will be as many as a large goose can conveniently cover.

In the event of any one being induced by our account to keep geese, let us recommend him not to begin with young birds. They are not to be depended upon for breeding till the third year, and do not attain their perfection for a year or two subsequent to that age. When once in their prime they never retrograde, so that, barring accidents, a person possessed of a gander and three or four geese (no way related to each other, and in their prime of life,) may consider himself set up in the *anserine* for life.



GRAPE GROWING AND NATIVE GRAPES.

THE continued and accelerating progress which is made in this branch of horticulture, and the increasing interest with which it is regarded, no less than facts of suitability of soil and climate for the production of fine grapes and the inexhaustible demand for the fruit and its products, lead us unmistakably to the conclusion, that the particular attention which it now attracts is not a 'mania' or 'fever,' but a healthy and well directed interest in the development of one of the most valuable branches of our varied agriculture.

The limit which shall define this pursuit, it is at this time impossible to determine; for if we should attempt to trace the channels that it would take in a country whose resources are developing as fast as our own, and where population is constantly opening new avenues of trade, only imagination could enable us to perceive, even in part, the ultimate position it should occupy as an element of wealth and commerce.

Those who have thought but little of this subject will yet ask what remuneration there is in this employment. To answer this question to the satisfaction of each of our readers, scattered as they are over a vast tract of country a thousand and more miles in breadth and length, it would be necessary to take into consideration the peculiar circumstances of each location.

We do not mean to say that this pursuit can be engaged in indiscriminately by every cultivator. On the other hand, it is absolutely necessary for the highest success that many favorable conditions shall be complied with.

Particular varieties of soil are quite essential to the production of good fruit—and the quality of this fruit is probably affected more than any other by the variety of the soil where it is produced. It is said, with how much truth, however, we are unable to say, that wine connoisseurs in the wine-growing districts of France and Germany can tell with great precision, from the particular qualities of wines, at what elevation the fruit was grown. A very light sand and a heavy clay soil are equally to be avoided for a vineyard. What is commonly known as a limestone gravelly loam, consisting of some sand, some gravel, some clay and a good proportion of vegetable mold, overlying a limestone formation may be considered the most favorable soil for the health, the longevity and the productiveness of the vines.

Although the southern exposure of a hill or hillock is usually preferred for the vineyard, no doubt such localities produce superior vines, yet what is known famil-

iarly as rolling land is quite suitable if the soil is right, and a larger amount of fruit can be obtained from such situations than from hillsides. We should carefully avoid a swale or flat piece of ground, for such localities are particularly liable to early frosts and to mildew.

Proximity and remoteness of markets and facilities of transportation are considerations of no small account to one thinking of engaging in grape growing, and should be duly weighed before commencing such an enterprise. Where, however, it is the intention to manufacture the whole crop into wine, less attention need be paid to these matters.

Climate, of course, is a subject of primary importance, and in *any locality* should this prove adverse, all other favorable conditions are unavailable.

A soil that is too retentive may be underdrained; or if too light, may have clay added to it; or if too heavy, sand; or if the site be too much exposed to bleak winds, it may be sheltered; but if the climate is naturally unpropitious, no human agency can ameliorate it to any considerable extent.

This subject of climate, therefore, must enter largely into the calculations of profit and loss; but we do not consider the extent of country favored with such a climate to be in any way yet determined. In fact the recent introduction of new varieties of grapes, which has done so much to fix the attention of fruit growers in the more northerly States, upon this subject, has proved the limit to shift with the discovery or origination of earlier ripening varieties.

Four thousand acres of vines about Cincinnati, and numerous vineyards throughout the whole length of the Ohio valley and Missouri, tell stronger than words can tell that in those localities grape culture is a success.

But what about it further north? Shall we have the same or similar results in some of the Eastern States, in New Jersey, Pennsylvania, New York, Northern Ohio, Southern Michigan, most of the Western States, and even in some parts of Canada? Wherever, in any of these States, the experiment has been tried, we have so uniformly heard of success that the idea of collecting statistics on the subject has scarcely occurred to us. Wherever in any of these localities, the enterprise has been properly undertaken and executed, the most gratifying results have followed; and this, too, with the varieties Isabella and Catawba, which, with our present knowledge, we consider quite unsuited for the purpose.

To enable our readers to form some definite idea upon this subject, it is with pleasure that we are enabled to copy from the last number of the *Horticulturist* the following facts which bear directly on this subject:

H. W. MURFELDT, Esq., of Newburgh, Orange Co., N. Y., has a vineyard, the vines of which were planted at different periods. First lot planted, 100 vines, have borne four crops; second lot planted, 150 vines, have borne one crop. These 250 vines are all that I will speak of in connection with this vineyard, as the others are younger. These vines, it was thought, did not occupy one half acre, but to make calculation safe, it was considered as half an acre. Product the past year, 3,700 lbs.; brought 14 cents per lb.; variety, Catawba. When these vines get old enough to bear a full crop, they will produce as many more pounds. The ground on which the first vines were planted was not trenched. He now trenches as he plants. Mr. MURFELDT says they have ripened fully each year.

MR. CHARLES WOOLEY, of New Paltz Landing, Ulster Co., N. Y., last year produced from three-fourths of an acre, four tons of the most beautiful grapes I ever saw. I think I hazard nothing in saying that his clusters averaged half a pound each. They brought 10 cents per lb. Varieties, Catawba and Isabella. The earth was not trenched. Mr. WOOLEY never fails to ripen his grapes.

S. B. TROWBRIDGE, Esq., a retired gentleman of Poughkeepsie, who cultivates the vine more particularly for the pleasure it affords, produced last year at the rate of \$1,024 per acre. This gentleman gave me a very interesting statement of his mode of cultivation.

MR. BRUNN, of Esopus, Ulster Co., and ISAAC MERITT, of Hart's Village, Dutchess Co., both last year produced results equal to any of the above; so I am informed by their neighbors, but not having seen them and their grounds, can not speak as of facts.

MESSRS. J. HEATON and W. KNIFFIN, my neighbors, have equalled any case I have named. Mr. HEATON's vineyard covers several acres.

No one acre of the above cost over \$200—cost of vines, preparation and planting.

We have no doubt that most of the vineyards in Central and Western New York would show similar results, and we trust that at an early day we may be enabled, by the action of our Fruit Growers' Society, to lay before our readers a large collection of facts on this subject.

As it is our sole purpose at this time to note the direction of the public mind in relation to the matter of grape growing, and not to enter into the practical details of the subject, we shall only offer, for the advantage of those intending to plant the present season, a few remarks on the value and comparative merits of the best and most reliable sorts of grapes.

The Isabella in our latitude, and the Catawba further south, until within the last year or two have been almost the only varieties of vineyard culture, but henceforth there will be a greater diversity, and, we have no doubt, a much superior quality of crops.

The Delaware grape now holds so high a place in public favor, and is so widely known, as to be scarcely entitled to the distinction "new," which alone gives *clat* to many varieties, and we are happy to state that this sort has progressed so far as to be firmly established in our best societies' lists of fruits for "general cultivation." Vineyards of it are beginning to be planted, and the most gratifying results to be realized. Mr. A. J. CATWOOD, who collected the facts we have quoted from the *Horticulturist*, says in the same article: "I think the Delaware and Concord will far excel the Isabella and Catawba for vineyard purposes. The American Pomological Society places it on its list for general cultivation, and the same may be said of the various Fruit Growers' and Horticultural Societies throughout the country. At the meeting of the Farmers' Club of New York, May 7th, 1860, Mr. A. S. FULLER, in making some remarks on grapes and wines, said that "while trying some wines a few weeks since, at the residence of J. G. SCHNEIKE, of Cincinnati, who has experimented with as many varieties of native grapes as any other man in this country, he made some statements which may be as interesting to others as they were to us. In naming six of the best varieties of vine-grapes in the latitude of Cincinnati, he placed the Delaware first and said the Delaware wine was the richest, and preserved the real bouquet of the grape, and it improved by age. The vintage of 1859 contained 8½ per cent. of alcohol. Even in South Carolina and Georgia, the Delaware is ranked

first by the most experienced grape growers; and if such is the case where the Catawba can be produced in perfection, how much more surely is it entitled to such preference here, where it proves the hardiest vine grown, and one of the very earliest to ripen its fruit, being at least a full month in advance of the Isabella.

We could go on adducing reliable statements, all to the same effect, in regard to the value of this variety, until a volume was filled, but we deem it unnecessary in the present state of information on the subject. We have said thus much to assure our readers that this grape has lost none of the favor with which it was first regarded, by the repeated and various trials to which it has since been subjected.

The following brief description will suffice to distinguish it by those to whom it is not familiar: Berries small, round; skin thin, of a beautiful amber color; flesh juicy, very little pulp; flavor sweet, sprightly and delicious; bunches medium size, very compact and sometimes shouldered. A good, free grower and one of the hardiest vines known.

In our memorandum book of last year we find the following at the date of Sept. 9: Delaware ripening well, a few bunches quite colored, all more or less. Sept. 19. A great part of the fruit already used.

Diana. This variety, in quality, ranks only inferior to Delaware. As we have never before given an engraving of it, we now present one. Its berries and bunches are larger than the Delaware, and it is also a stronger grower—equalling, we think, the Isabella, in this respect. It ranks very high in the estimation of practical fruit growers, and like the Delaware, is placed by the American Pomological Society on its list for general cultivation. In the severe winter of 1860-61, this variety in this vicinity, with the Isabella and Catawba, was badly injured by the cold, and we have no reason to suppose it any harder than them. The Delaware, Concord and To Kalon were the only ones among some forty varieties that were able to stand this test of Arctic cold. It would be unfair, therefore, to place much against the Diana on this account.

DR. MINER, of Honeoye Falls, in this county, who has had most experience with this variety, regards it very highly, and as a most profitable sort for extensive culture.

NICHOLAS LONGWORTH, the great grape grower and wine maker of Cincinnati, says: "The Diana I deem superior as a table grape to the Catawba."

In reference to the Diana as a wine grape, Mr. SCHNEIKE, whose remarks in relation to the Delaware we quoted, said, in connection therewith, that with the Diana he had but little experience, but from the wine he had made from it he was inclined to place it next to the Delaware.

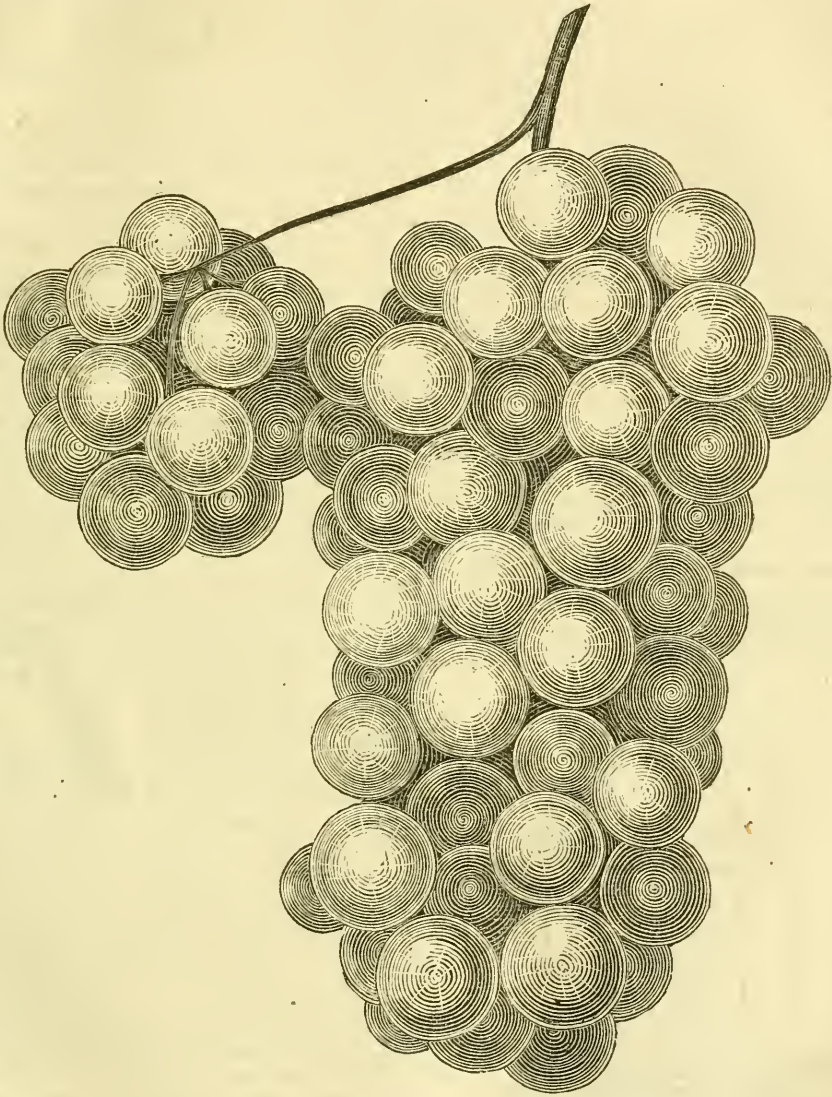
The bunches of the Diana are large and compact; berries large, amber colored, round, abounding with a rich, vinous and aromatic juice; ripens in this vicinity from one to two weeks before Isabella. Our memorandum of Sept 9 says: Diana commencing to color:

Concord. This variety, from its hardness, fine appearance, vigorous growth, productiveness and early ripening, must become extensively planted. Berries large, round; thick bloom, dark color; bunch, in size

form similar to Isabella, and the fruit ripens two weeks earlier.

Crivelin. When more shall be known of this variety, think it will rank high among the new sorts. Where originated, in Pennsylvania, it has superseded the Isabella, as it is better in quality, and ripens two or three

Hartford Prolific. This variety resembles Isabella in many respects, but is much earlier in ripening, and on this account will become a favorite. Memorandum, Sept. 9, reads: Hartford Prolific ripening finely, many bunches being fit to cut; and Sept. 13: Hartford Prolific and Delaware have many bunches fit to cut.



THE DIANA GRAPE.

weeks earlier than that sort. In general appearance, it closely resembles the Isabella. Flesh melting, juicy and sweet. Our memorandum of Sept. 19 reads thus: Crivelin, well colored and sweet—fit to eat. Isabella, in open ground away from buildings is just commencing to color, in fact, this may be said only of here and there a bunch, the great mass yet remaining green. But by the sides of houses and in very favorable and sheltered situations, there are many bunches well colored, but not uniform, nor have they yet attained any sweetness.

Rebecca. One of the most beautiful and delicious of all the native grapes, but will undoubtedly require more than usual care. It can not be too highly recommended for a garden variety. It is a white or yellowish white grape; berries medium size; obovate; very juicy, melting, and free from pulp; flavor rich, sugary, vinous, brisk and luscious; skin thin, greenish white, and covered with a thin, white bloom; bunches medium size, without shoulders. Ripens about two weeks earlier than Isabella.

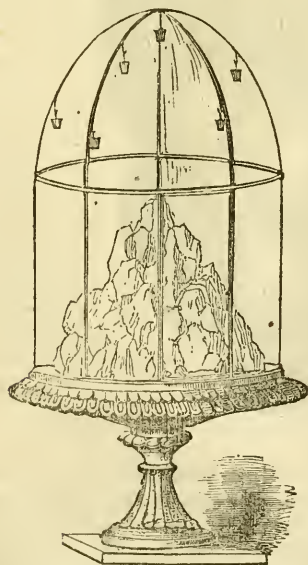
Blood's Black. A sort of which as yet we know but little, but are impressed in its favor. In size and quality it compares with the Isabella. Memorandum, Aug. 27th, says: Blood's Black nearly covered with red. Sept. 4th: Blood's Black fully ripe. Sept. 9th: Blood's Black all eaten by the birds.

Ontario. Not enough is yet known of this noble appearing fruit to enable us to say much positively in reference to it. We had the pleasure of tasting it last summer, but it was grown under glass. We should not, we think, be warranted to ascribe to it in the open air the fine quality it then presented. It was show fully ripe at the State Fair held last year at Watertown, Sept. 17-21. It is a fruit of great promise; bunches very large, double the size of Isabella; berries large, black; skin thin, covered with a rich bloom; flesh with very little pulp, juicy, aromatic and vinous.

Perkins. A variety but little known. Although not equal to some other in quality, it is so hardy and so very prolific that it bids fair to be a sort which will be considerably planted. At the meeting of the Fruit Growers' Society of Western New York, Oct. 1, 1861, Mr. Townsend said that he had "seen the Perkins on Mr. Hoag's (of Lockport) grounds, and had never seen a vine so immensely loaded. It is of fair quality—as good as Isabella and better than Hartford Prolific, though only second rate as compared with Delaware." The time of ripening of the Perkins varies but little from that of Hartford Prolific.

GLASS CASES FOR PARLOR GARDENING.

THE use of glass cases in rooms for growing certain varieties of plants, is becoming deservedly popular, and we hope to see this taste wide spread throughout our



GLASS CASE FOR PARLOR PLANTS.

country. No object can be introduced into the parlor more ornamental, or which will afford so constant and lasting a pleasure. Especially with a people inhabiting a latitude where we are confined to our houses the greater

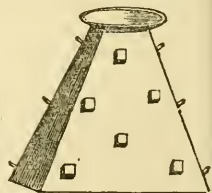
portion of the time for several months in the year, should this branch of horticulture be carried to its highest limit.

The cases employed for this purpose may be very simple, consisting only of a wooden pedestal, which the wood turner can make, somewhat similar in form to the one represented in the annexed engraving, and a simple glass case, such as are sold by the crockery and glassware merchants. The glass case ought not to be less than a foot or fourteen inches in diameter, and the pedestal made to fit it closely.

The upper surface of the pedestal should be turned out or hollowed, so as to leave a basin from half an inch to an inch in depth, which should be closely lined with zinc to prevent the water from being absorbed by the wood, which of course would soon destroy it.

The engraving we here give is of a case much larger than that of which we are now speaking, and suitable to grow a greater variety of plants and those of a larger size than could be employed in the small case. The cut and the description of it which we here give are taken from the *Journal of Horticulture* (English.) The writer of the article says:

I should prefer a stand similar to that represented in the engraving; it should have a diameter of three feet, but less would of course suffice, in cases where that may be thought too large. The glass case should be made to fit exactly to the inside of the stand, and should have the framework formed of stout brass bars, well secured to a strong rim of zinc round the bottom. A department on each side should be made to open, care being taken that these openings are made as nearly air-tight as may be, and a few hooks should be securely fastened to the bars in the upper part of the dome, by which to suspend small plants in pots. The stand should be filled nearly to a level of the rim with broken pot-sherds or sandstone, or any rubbly porous material. Over this should be laid a small stratum of sand, to make a very level surface. In the centre, on this level surface, place a four sided cone of zinc, about 16 inches in height, with a saucer at the top, and having some strong pieces, of about 2 inches square, well fastened to and projecting from the sides. Next commence around the base of the cone, and place angular pieces of sandstone of about five or six lbs. weight each, and pile up thus completely over the cone. The projecting pieces will assist in retaining the stones in position; and a most important point to be observed is, that every stone must be laid perfectly firm from bottom to top, as the plants will not flourish on a movable stone. This may be insured by the use of a little cement as the operation proceeds; but I have also made use of small flexible wire, passed several times round the mass, for the same purpose. The interstices between the stones may be filled with some nice fibry loam, sandy, soft, and unctuous to the touch.



As it will be difficult for most people who may wish to construct these cases to procure glass curved so as to form the top as it is represented in the engraving, we would suggest that the case be made polygonal in form and the top pyramidal, and then plane glass can be used for every part. A case with a diameter of three feet would require, to be in good proportion, a height of from four to six feet. Such a structure, with its furnishing, would of course be quite heavy, and care should be taken that the bottom be constructed of good solid material. A set of strong castors will enable it to be moved from spot to spot as convenience may require.

The plants suitable for a small case are, on account of their size, of course, comparatively few. The best of these are *Lycopodium denticulatum* (fig. 1), a green, moss-like, weeping plant, of great beauty. *L. Willdenovii* is an upright variety, growing from six to ten inches high. It has several shades of color, varying from light green to blue and brown. *L. caesi-*



Fig. 1.

um is a very beautiful trailing variety.

Tradescantia Zebrina, variegated-leaved spider-web.—A pretty, trailing, variegated-leaved plant.

Linaria cimbalaria, Kenilworth ivy.—A little trailing plant; leaves smooth, cordate, finely lobed.

Lysimachia nummularia, moneywort.—This is a pretty, delicate, little, green, trailing plant, with opposite, roundish, cordate leaves, bearing a small, yellow blossom.

Cissus discolor.—A most beautifully variegated leaved, twining plant.

From the varieties of native ferns, we have selected the following, on account of their small size and their beauty, as most suitable for a very small case:

Polypodium vulgare (fig. 2).—Frond or leaf deeply pinnatifid, smooth; nearly a foot high and divided into segments nearly to the midvein.



Fig. 2.

Polypodium Dryopteris (fig. 3).—A very beautiful slender variety, nearly a foot high; frond consisting of two light green, compound, drooping leaflets, of a very delicate texture; root black and very slender; grows in shady places and mountainous woods—comparatively rare.



Fig. 3.

Asplenium Trichomanes.—Frond bipinnate; lance linear in outline, from three to six inches high, with eight to twelve pairs of small, roundish-ovate leaflets; stipe or stem black and polished. A small and delicate fern.

Ophioglossum vulgatum, Adder's tongue, (fig. 4).—A curious little fern growing in low grounds; fronds solitary, two to three inches long, and two-thirds as wide. The little, green, narrow-pointed leaves, seated on a narrow stalk or neck, and peeping up from among the grass, may not be unaptly compared to a snake's tongue.

Asplenium Montanum.—Frond smooth, bipinnate, narrowly oblong, lanceolate in outline; grows in tufts four to eight inches high on mountain rocks.

Adiantum pedatum (Maidenhair fern).—This is the most beautiful of all our native ferns, abounding in deep,



Fig. 4.

rocky woods. Stipe eight to fourteen inches high, slender, of a deep, glossy purple, approaching a jet black. At the top it divides equally into compound branches, each of which gives off, at regular intervals, six to eight pinnate leaflets from the outer side, giving the whole frond the form of the crescent.

In a larger case, a much greater variety of plants may be introduced—especially of ferns, the most beautiful of all plants for this purpose, and to which particular attention should be directed.

But little thought or care has yet been bestowed in this country, to growing collections of ferns, and of course it is at present impossible to obtain here many of the fine exotic varieties of this graceful plant; but, as our own forests furnish us with a great number of the most beautiful and highly prized sorts, no one need be debarred the privilege of cultivating them, since it only requires the trouble or pleasure of collecting them from sources easy of access to nearly every one of our readers.

Besides the plants mentioned and described above, we here specify a few others suitable for a large case:

Sarracenia purpurea, Side-saddle flower, (fig. 5).—A native plant familiar to many of us. Grows in wet meadows and about mud lakes. Leaves six to nine inches long, evergreen, composed of a hollow, pitcher-form petiole, swelling in the middle, with a wing-like appendage, extending the whole length inside, from half an inch to an inch wide, and extended on the outside of the mouth into a lamina covered with



Fig. 5.

reversed hairs. Their capacity, when of ordinary size, is about that of a wine glass, and they are generally full of water. It bears a single, large, purple, nodding flower, almost as curious in structure as the leaves.



Fig. 6.

Saxifraga Sarmetosa, Beefsteak geranium, (fig. 6). A plant of Chinese origin, common in most green-houses. Leaves variegated, roundish, toothed, very hairy. Throws out runners which strike root like the strawberry.

Calla Ethiopica, African lily, (fig. 7).—This familiar plant is well adapted for a large case. Its dark green foliage, of peculiar form, has a luxuriant tropical appearance, and the large, show-white flowers would be ornaments of great beauty.

Vinca varietata major.—A new variety of periwinkle, with variegated leaves. Like the other periwinkles, it is a trailing plant. Foliage very large, and beautifully margined, striped and blotched with silver.

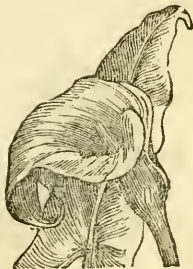


Fig. 7.

Nepenthes distillatoria, Pitcher plant, (fig. 8).—This is the famous pitcher-plant of China and the East Indies,



Fig. 8.

which bears leaves, the extremities of which are hollowed out into cup-like appendages, which are generally filled with water, which seems as if confined within them by a lid, by which they are surmounted. This plant probably requires more heat to keep it in good health than most of the others here mentioned, and should, therefore, be used only where a pretty

warm temperature is kept up, say from 70° to 80°.

Dionæ Muscipula, Venus' fly-trap, (fig. 9).—This is a native of the Southern States. It is a singular plant in respect to its leaves, which are of an anomalous form, and have a singular motion by which they catch insects. LINDLEY affirms that when the entrapped insect ceases to struggle and is quiet, the leaf opens and permits it to escape." This does not agree with ELLIS' account, for he affirms that the lobes never open again so long as the animal continues there. He thinks it probable that a sweet liquor discharged by the red glands tempts the insect to its destruction. He adds that if a straw or pin be introduced between the lobes, they will grasp it as fast as if it were an insect. A friend of ours who has had considerable experience in growing this plant has informed us that when an insect is caught in a leaf, it remains closed until the structure of the insect is destroyed by decay, and he considers that the plant draws nourishment from this source.



Fig. 9.

Goodyera discolor.—An herbaceous plant, with fleshy, chocolate-colored, ovate leaves.

Of native ferns, in addition to those already noticed, we will add, for a larger collection:

Aspidium cristatum, Crested shield fern.—Frond twelve to eighteen inches high, pale green; remarkable for its broad, ovate-lanceolate outline. Grows in moist woods, in New England and the Middle States—rather rare.



Fig. 10.

Aspidium Lancastrænsis, Lancaster shield fern.—A beautiful fern, quite distinct from the preceding, twenty-four to thirty inches high. Frond dark green, from fifteen to eighteen inches long and five to eight inches in width; narrowly lanceolate.

Aspidium tenue, Brittle shield fern.—A delicate fern, on moist rocks—frequent. Fronds six to twelve inches in height, dark green; its divisions rather remote, and with subdivisions considerably variable in form,

Asplenium Filix-femina (fig. 10).—A delicate, finely divided fern, found in moist woods. Fronds from one to two feet high, with sub-opposite divisions. These are subdivided into distinct obtuse segments, which are themselves cut into oblong, deep serratures, and lastly, the serratures are mostly with two or three teeth at the summit, the whole producing a very graceful and pleasing effect.



Fig. 11.

Osmunda regalis, Royal flowering fern, (fig. 11).—Almost too large for a case, for which, however, small plants may be used. It is a large and beautiful fern, found in swamps and meadows. The fronds are three or four feet high, smooth in all their parts, lance-leaved in outline. Leaflets or pinnae opposite, remote, each with six or nine pairs of leaves, with an odd one.

"HOW MUCH SEED SHALL I REQUIRE FOR MY GARDEN?"

THIS is a question often asked, but which can not be answered definitely unless all the circumstances are known. The general rule is to buy enough to ensure a crop; in other words, take the advice of the seedsmen, *who alone knows how far his seed will go!* The London *Gardeners' Chronicle* has an article on the subject from which we make a few extracts:

The uncertainty in the quality of seeds may be owing in part, and in some cases (as with onions) almost wholly, to their having been produced in a bad climate, the husks alone being formed, without the presence of a living germ within. Another cause is the destruction of the vital principle in consequence of seeds having been stored before they were dried, the inevitable effect of which is the loss or fatal weakening of germinating power. In some instances an eager gardener gathers them before they are ripe, as is much the case with those flower "seeds" which are not seeds at all, but seed vessels, such as China Asters and other composite flowers, or esculent Umbellifers like carrots; these may be fair to the eye, although but emptiness within. And there is the dead remainder of a seed drawer invigorated by the addition of a fresh young crop.

These causes, to say nothing of others, are more or less in continual operation, and seedsmen themselves can by no means always guard themselves against being deceived by appearances. But it is evident that unless seeds are uniformly alike in quality, there can be no certain rule by which to determine the quantity to be sown. You can not deal with living as with dead matter. In the affairs of mankind, it by no means follows that two and two practically make four; life sets arithmetic at naught. In like manner a pound of cabbage seed is not like a pound of shot, although the two are a good deal alike. A pound of shot will always produce the very same effect under equal circumstances. But a pound of cabbage seed will do no such thing; not one-half—not more than a quarter—will take effect, so that two pounds or even four pounds may be required to do the work of one pound.

A COMMON MISTAKE IN RAISING BULBS.—All bulbs feel extremely any dryness after their growth has once set in in earnest. It is quite discouraging to have tulips and crocuses going out of bloom too fast. When this is the case, it will be often found, on examining the soil, that it is too dry, for the quantity of water absorbed and transpired by bulbs is something quite astonishing, and a good watering will often renew the blooms—give them, as it were, a new lease of life.

Ladies' Department.

ORIGINAL DOMESTIC RECEIPTS.

Contributed to the Genesee Farmer.

A BOILED PUDDING.—Remove the crust from a loaf of bread, put it in a cloth tied tightly, and boil it an hour; then serve with a nice warm sauce. This is very cheap and a very good pudding.

A VERY NICE PUDDING.—A loaf of cake made with soda, rather plain, steamed thoroughly, and eaten with a warm sauce made of wine or cider, is very good. If the butter and sugar are thoroughly mixed by long stirring before the wine or cider is added, it will look creamy, and greatly improve the taste of the sauce.

INDIAN BREAD.—Take two quarts of sifted meal, pour on boiling water enough to make the meal quite moist. When cool, add a quart of wheat flour, half a pint of risings, two-thirds of a tea-cup of molasses, and a little salt. Mix well together, put into large basins and let it rise. When light, bake in oven one hour, and then steam two hours over a pot of boiling water.

HOW TO TRY LARD.—The trying of lard is an important branch of economy, requiring a little care and some direct information. Water, be it remembered, should never be made use of in this process, since it cooks the fat and makes it soft, and causes it to become speedily rancid. Put a lump of fat into a pot, and let a little of the fat try out over a moderate fire; after which, put the fat over the fire, with such precautions that there is no danger of the lard scorching, and no need of water. The lard, when fully cold, will be found quite firm and solid, which can not be the case if water is made use of in trying out.

RENNET.—It is now decided by the best judges that the calf should be taken from the cow sixteen or eighteen hours before killing it. When the rennet is taken out, pick out the straws if there be any, and fill it with salt. Never wash it in the least, inside or out. Place a layer of salt on the bottom of a large stone jar, then put in the rennet that has been filled with salt; add another layer of salt, and so on until the jar is filled. Be sure and have so much salt that there will be no brine. Cover it tight, and set it in a cool place. When wanted for use, make a strong brine, throw in a few sprigs of sage, and put in the rennet—one, two, or half a dozen, according to the number of cows in the dairy. They should be put to soak two or three days before needed for use. When soaked a day or so, they should be turned wrong side out and thoroughly rubbed. One gallon of brine is sufficient for two rennets. A teacup two-thirds full, where two rennets have been soaked, should bring one milking of thirty cows. But be sure and use rennet enough to bring the milk the first time; better have a little too much than not enough. If you get in a little too much, and it is sweet, it will not hurt the cheese in the least, as it will work off in the whey. Never use sweet whey to soak rennet, for it has a tendency to sour the curd. Never use a drop of rennet but what is perfectly sweet. The best vessel to

soak rennet in is a stone jar, set in a cool place and covered tight. When the liquor is used off, more should be added, but a greater quantity will be needed to bring the cheese. One very important fact should be remembered, and that is to have the rennets well salted.

BOILING VEGETABLES AND MEATS.—In boiling vegetables, they should not be put into the water until it is heated, and then there should be no cessation until the cooking is done. But when meats are boiled, quite an opposite procedure is to be observed. They require to be put into the water while it is cold in the case of fowls, while the water is a little warm then, instead of rapid boiling, the water should be simmered. By this process, the meat is made tender by fierce boiling it is hardened and made tough. Potatoes should be put into boiling water and boiled as quick as possible—not over twenty minutes. Even potatoes will become mealy boiled in this way.

[So writes an experienced housekeeper. We however, that in the case of boiling meat, it is better to put the meat into boiling water, and let it remain a few minutes to harden the outside. Then pour in cold water and keep the water below the boiling until the meat is done. This will keep all the goodness in the meat, and it will be tender. If put in cold water will make good soup, but the meat will not be so good.]

AMERICAN WOMEN.—A German writer, J. G. Kohl, has undertaken to describe American women. The picture is not a flattering one. As to good looks, he thinks that a great majority of American women are moderately good, but "their charms are concentrated more in their features than in their demeanor, figures, or corporeal shape. They think the reverence for women in America has perished and spoiled them. They do not make good help-meets for their poor husbands. "If a lovely American woman sinks into the arms of a man, to be bound to him for life she does so much in the same way as she throws herself into her easy-chair. Marriage is her pillow, her sofa, on which she intends henceforth comfortably to repose. When on it she confidently throws all the burden of her life, and troubles; she regards her husband as her factotum, who has to provide for all her wants. He must provide her a house according to her fancy; he must furnish the house exactly as she wishes it; he must arrange and administer the kitchen and cellar, and even go every morning before breakfast to make the necessary purchases for the day's meals."

"Even farmers' wives often hold themselves much too high for business of this sort, and scenes of the following nature may be seen at market: A young farmer's wife once saw sitting in a little one-horse chaise and holding the reins. In her elegant dress she could not, of course, be expected to go into the dust and confusion of the market, so she had sent off her husband. He was standing among the stalls, like a swallow collecting insects for his young, and presently appeared again laden with sorts of boxes and parcels. These the farmer's wife, naturally, could not take on her silk lap, so the husband had to hold them carefully in the chaise."

Miscellaneous.

POTATOES.—Some years ago, a gentleman visited a farmer at Tallond, Conn., took from his pocket a potato which somehow had got in there at home. Thrown out with a smile, and the farmer took it in hand to look at it. A little boy of twelve at his elbow asked what it was. "O, nothing but a potato, my boy; and plant it, and you shall have all you can raise till you are of age." The lad took it, and the farmer said no more about it at that time. The boy, however, sowing small potatoes, carefully divided it into as many pieces as he could find eyes, and put them in the soil. The product was carefully put aside in the fall, and for several hills was obtained for the next year. The product was all kept for seed, until the next year, the yield being good, the actual product was about a hundred bushels. The farmer, seeing the prospect for another year the potato field would cover his farm, asked to be released from his promise.

At the same calculation, prudence and industry, how many who are disposed to regard the trifling things upon which fortunes are built, as too "small potatoes" to require their attention, would have been in independent circumstances if they had husbanded their small advantage. Small potatoes should not be despised, even though they are at first "few in a hill."

PRAYED HIMSELF.—During the prevalence of the cholera in Virginia, the negroes on the different plantations became dreadfully alarmed, and thought they would die with it. Among others, in one of the upper counties, was a negro boy who, having heard his father at the cholera would soon be along that way, left work one day and betook himself to the woods. Here he was found by his overseer soon after, fast asleep. Brought to task by him for leaving his work, he excused himself on the ground that, not being "prepared to die," he had gone to the woods "to meditate." "But," said the overseer, "how was it that you went to sleep?" "I don't know, massa, how dat was 'zactly," replied the negro; "but I speck I must have *over-prayed* myself."

SALUTARY THOUGHT.—When I was a young man, I lived in our neighborhood a farmer who was usually reported to be a very liberal man, and uncommonly so in his dealings. When he had any of the produce of his farm to dispose of, he made it an invariable rule to give good measure—rather more than could be required of him. One of his friends, observing him frequently doing so, questioned him why he did it—told him he was too much, and said it would not be to his advantage. Now mark the answer of this excellent man. "The Almighty has permitted me but one journey through the world, and when gone I can not return to rectify my mistakes." Think of this. But *one journey* through the world!

Remember always that if you would be loved, you must be lovable.

PURCHASING A HUSBAND.—Susan, a country girl desirous of matrimony, received from her mistress a present of a five pound bank note for her marriage portion. Her mistress wished to see the object of Susan's favor, and a very diminutive fellow, swarthy as a Moor, and ugly as an ape, made his appearance.

"Ah, Susan," said the mistress, "what a strange choice you have made."

"La, madam," said Susan, "in such hard times as these when about all the tall fellows are gone for soldiers, what more of a man could you expect for a five pound note?"

LOVE OF THE BEAUTIFUL.—A farmer was one day visiting the owner of a beautiful country-seat in Brooklyn, and walking with him through the little grove, out of which all the underbrush had been cleaned, paths had been nicely cut and gravelled, and the rocks covered with woodbine, suddenly stopped, lifted up his hands, and exclaimed: "This I like; this is Nature with her hair combed!"

A SCOTCH STORIC.—"Ah! John, you won't have me much longer. I shall never leave this bed alive." "Please thee-self, Betty, and thee'll please me," returned John, with great equanimity. "I have been a good wife to you, John," persisted the dying woman. "*Middlin'*, Betty, *middlin'*," responded, the matter-of-fact husband.

A FAST MAN.—A journalist has discovered that, all things considered, railways are very slow, and behind the age. He says that, when traveling, he blushes to think that the message over the telegraph flies like lightning, while he is lazily creeping at only thirty or forty miles an hour.

A young Irishman who had married when he was about nineteen years old, complained of the difficulties to which his early marriage had subjected him, and said he would not marry so *young* again, if he lived to be as old as Methuselah.

THE LATEST.—A gentleman rode up to a public house in the country, and asked, "Who is the master of this house?" "I am, sir," replied the landlord; "my wife has been dead about three weeks."

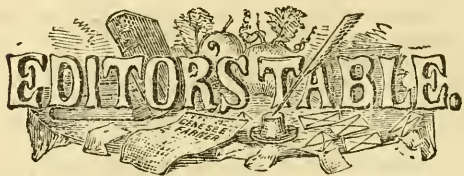
"THERE is no duty, there is no pleasure, there is no sentiment, which does not borrow from enthusiasm a charm which is still in perfect unison with the simple beauty of truth."

A GOOD WIFE.—A preacher, in a funeral sermon on a lady, after summing up all her good qualities, added, "that she always reached her husband his hat without muttering."

LOVE'S WONDERS.—One year of love would do more toward setting us mutually right when in the wrong, than an eternity of wrangling.

To be pleased with one's self is the surest way of offending everybody else.

WOMAN.—A down East Yankee very cutely says: "Though the men hold the reins, the women tell them which way to drive."



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NOT TOO LATE TO SUBSCRIBE.—As we stereotype the *Genesee Farmer*, the back numbers can always be supplied. All who subscribe now will receive the three first numbers, together with the remaining numbers of the year, and will thus have the volume complete.

We continue our offer of Premiums to all who send subscribers. The books and seeds are sent by return mail, and the grape vines, etc., will be sent in good season for planting.

A better opportunity to secure valuable seeds, plants, etc., was never offered. There is not one of our readers that can not get at least *two* of their neighbors to sub-

scribe for the *Farmer*, and thus secure a package containing six papers of the choicest imported flower seeds. What lady can not get *four* of her friends to take the paper, and thus receive by return mail sixteen papers of the choicest flower seeds to adorn her garden? That wants a Delaware grape vine, can not procure subscribers for the cheapest and best agricultural horticultural paper published?

Will not *all* our friends *oblige* us by availing themselves of these extraordinary offers? *Now is the time.*

NOTES ON THE WEATHER FROM FEBRUARY 14TH, TO MARCH 16TH, 1862.—February had a quite uniform temperature, not very low or very high for this month. The average of the last half was 24.7°, or 2.5° below the mean for years; and the average of the month was 24.7°, or below that of the month for those years. The coldest was 4° on the 25th, and the mean of the day was 11°. The next warmer was 5° on the 15th, which was coldest day of the month, 12.3°, and the 16th only 1 degree higher. Still, the heat of February, 1861, was 4 or 4 degrees higher than this.

The hottest noon was 49° on the 23d, and on the 24th the day was the great storm of the month. It began at the E. or S. E., on the coast of North Carolina, was seen at Washington, and extended as a N. E. storm to Maine, pouring down rain, and then snow at New York, Boston, Portsmouth, and northwards on the coast. The winter at Washington was S., and rain began at 10½ A. M., and at 11 the wind changed to a tornado from N. of W., and the steeple of a church fell before it. The storm, less severe, continued into the night. The barometer was at 29.25 inches before the storm on the 21st, fell to 29.25 inches as the rain began, and had risen on the next day to 29.5 at 11 A. M. At New York the wind changed, and violently at 3 P. M. from the west. At Rochester, Mass., at 2 P. M., the change from the west; at Barnstable, Mass., the change was at 8 P. M.; at Belfast, Me., the change from the west was at 9 P. M.; and at Quebec the gale storm was severe at 11 P. M., changed then to N. E. and continued to 2 A. M. of the 25th. At evening, a der storm extended from Maine along the coast to Island sound, and to some extent into the interior. Here, the thermometer fell all the 24th to 4° on the morning, the lowest in the month. The storm was violent, as well as very rapid in its motion northward, and the telegraph line was strongly affected all along the coast. In Western Massachusetts the violent W. wind came on about 7 P. M., and the cold fell below zero.

The water fallen was 2.82 inches.

The sleighing was fine all the month, as well as the last half of January—six weeks of good sleighing successive days. The month was fine for the operation of business. A great quantity of snow has fallen on the eastern part of this State and over New England.

March began with cool, pleasant weather, and the sleighing was not materially affected by the rain on the 3d. On the 8th and 9th, the snow melted under the warmth, and the rain of the 10th, and its temperature noon of 46°, perished the sleighing for the present. The fields, however, abound in snow. The *Genesee Farmer* began to rise, and on the 12th at 11 A. M., the ice of the Ger-

off under high pressure of deep water. On the 14th we have some rain from the S. E., and a great rain fell through the night of the 15th, and to the very end of that day. If the storm should be as great at the end of the month, and other parts of the State, a high flood is to be expected. We wait for the news. West of Rochester, in Orleans and Niagara Counties, the rain of the 15th froze the limbs of shrubs and trees with ice an inch thick, and breaking down the limbs, and causing great injury of fruit trees.

The average heat of this half is 30.6°, only half a degree above the mean for 25 years. The first day was the 1st, 18°, and its average, 20.7°; the greatest heat was on the 10th, and its mean, 41.3°. The season has been favorable to our fruit trees.

The sugar appeared in the market in the first week of the month, and is now dear, though not so dear as the first new sugar of last year.

The demand for apples, and consequent high price of twelve shillings a bushel, has brought out a considerable quantity from the stores, laid up for use at such a price.

The Markets.

OFFICE OF THE GENESSEE FARMER.
ROCHESTER, N. Y., March 25, 1862.

Most noteworthy transactions since last report are the great advance in the price of pork. In New York, Feb. 6, medium, dressed hogs sold for \$4.25@4.50 per 100 lbs.; Feb. 13, \$4.50@5; March 6, \$5.75@6; March 13, \$5@5.25; March 20, \$5@5.50. From the middle to the end of February, the market was greatly excited. The Union victories, and the prospects of the opening of the Southern market at no very distant date, caused a great speculative demand, and prices advanced all over the country. Orders were sent West, we are "buy at any price." The first week of March, however, excitement began to subside. It was ascertained that the crop of the West was much larger than previous years, and disposition to speculate was less rife. The next week, the demand was confined principally to the local trade, and prices receded to \$1 per bbl. on mess pork, and dressed hogs are but a trifle higher than they were six weeks or two months ago. There is no doubt that pork will advance—but it may not be for several months. It is now below the producing point, and will take everything else, sooner or later find its level. We would advise our readers to hold on to what they have—but not to speculate.

The price of beef cattle in New York is about the same as last week. First quality, 8½¢@9¢ per lb. estimated dressed weight; second, 7½¢@8½¢; poor quality, 6½¢@7¢. The market has a downward tendency.

Mutton sheep have advanced since last month. They are now 5½¢@6¢ per lb., live weight. Last week, 1,037 sold at an average of \$5.54 each. Pelts sold at \$1.75 with a downward tendency.

Young oxen are in better demand. Prices range from \$30 to \$40 for pair for medium, and \$130@140 for large, active, well-bred cattle. Milch cows are in excess of the demand, especially ones. Some sold as low as \$20@25 each, while a few good milkers with calf brought \$30@35. The market is overstocked with "hobs," and the price is low—as it ought to be. They sell at \$1@1.50 each!

Good and omnibus horses sell in New York at \$110@115. 322 head of horses for the Rhode Island troops brought an average of \$100 each. They were quite inferior. Some heavy horses were sold last week at \$200@225 for first class, and \$175 for second class.

IN MARKET.—There is little or no change in the price of grain since last month. In fact, prices have changed very little since the first of January. The tendency of the market is downward. Corn is lower in New York. We quote Western mixed at 80¢. Rye is lower—80¢@82¢. Oats are also lower—85¢@40¢. Hay has advanced. It is quoted at \$1c@1½ per bushel in New

THE INJURY TO PEACH TREES BY THE LATE STORM.—Since the paragraph on the next page was written, we learn that in the western part of this County, and in Orleans and Niagara Counties, considerable damage has been done by the ice breaking off the limbs of trees. We are told that whole orchards have been stripped, and even forest trees have been very roughly "pruned." The injury is undoubtedly much more serious than we at first supposed. In Canada, too, much damage has been sustained from the same cause. J. W. SNELL, of Rainham Centre, C. W., writes, under date of March 15th: "The amount of ice collected on the trees during the great rain of last Saturday surpasses anything in the recollection of the 'oldest inhabitant.' Every little twig of the size of a straw is covered with ice fully an inch thick, and then icicles from four to six inches long hanging from the limbs. Many of the younger and more tender sorts of trees are broken down. Our fruit trees being most of apples, which are strong, have stood the test pretty well, but peach trees, where they exist, have gone down."

In this immediate vicinity, little or no damage has been done. Everything is favorable for a good crop of fruit as yet. The weather is cool, and this keeps the buds from starting, and there is now no danger as long as they remain dormant.

THE RURAL ANNUAL AND HORTICULTURAL DIRECTORY FOR 1862.—We have now a new supply of the *Rural Annual* for this year. It will be sent to any address, by return mail, for 25 cents.

The *Rural Annual* has been published seven years. The seven numbers, 1856, '57, '58, '59, '60, '61 and '62 will be sent, prepaid, by return mail, for \$1.40, or 20 cents each. No farmer or fruit grower should be without them.

PREMIUMS EXTRAORDINARY.—We continue our offer of books, seeds, grape vines, fruit trees, etc., to all who procure subscribers for the *Genesee Farmer*. See last page of this number.

Inquiries and Answers.

CHEESE VAT.—(JOHN CRAIG.) Roe's Western Reserve Cheese Vat is one of the best we have ever seen. We think it is manufactured in this State, but do not know the address of the manufacturers, or the price. We saw it at the State Fair at Watertown last fall, and were much pleased with its simplicity, convenience, etc.

APPLES AND APPLE TREES.—(J. C. BURNBAE, *Seymour East, C. W.*) We are unable to identify the apple which succeeds so well with you, from your brief description. If a specimen or two could be sent us, we should probably be able to give its name.

Of what varieties are the trees which do not succeed with you?

PRUNING-NEGLECTED VINES.—(J. G., *Kingville, C. W.*) When vines have been left until the sap begins to flow, it is best not to use the knife at that time on the old wood, but to wait until the young shoots have pushed a little, when the buds not wanted to grow can be rubbed off and the redundant wood removed. In this way there will be no loss of sap.

RECORD.—In the August No. of the *Farmer*, Geo. E. BRACKETT, of Belfast, Maine, gave a "Register" of the time of blossoming of shrubs and trees, and the appearance of migratory birds, etc., for the spring of 1861. He gives his location as 44.23° N. latitude, and 69.8° W. longitude. For the sake of comparison, I give a similar "Register" for the same spring. My location is 42.28° N. latitude, 77.58° W. longitude. Altitude, about 1,800 feet above tide, which will about compensate for the difference in latitude.

RECORD FOR THE APPEARANCE OF BIRDS, ETC.

Robin and blue bird appeared February 28.
Song sparrow (ground sparrow)—March 2.
Phebe bird—March 29.
Barking frogs and striped snake—April 6.
Golden winged woodpecker (yellow hammer)—April 15.
Virginia nightingale—April 22.
Barn swallow and meadow lark—April 24.
Oat bird—April 24.
King bird—May 9.
Rice bunting (bob-o-link)—May 15.
Chimney swallow, humming bird, and scarlet tarriger—April 22.
Red-head woodpecker—April 25.
Wren Cuckoo—April 26.

RECORD OF BLOOMING OF SHRUBS, ETC.

Hepatica triloba bloomed April 8.
Lilac and violets—April 27.
Siberian crab apple—May 25.
Tulip and hyacinth—May 25.
Apple—May 29.
Aquilegia and garden ranunculus—June 1.
White clover—June 7.
Peony and snow ball—June 8.
June roses—June 28.
Pear, plum, peach, cherry and grape flower buds all killed.

We had a very warm spell of weather the last of February, and then cold, stormy weather all through March. We had thunder showers on the 23d, 25th and 26th of April—then cold again—and on the 1st of May it snowed four or five inches, and at night froze ice one inch thick in tubs, etc. On the 19th of May, it snowed a little, and at night froze ice half an inch thick. On the 18th of June, there was a light hoar frost in the valleys. Notwithstanding our spring was so cold and backward, and summer unusually cool, grain of all kinds, even to corn, ripened and produced well. The first fall frost, severe enough to kill cucumber vines, was on the morning of October 27.—Wm. Howe, *North Almond, Alleg. Co., N. Y.*

FRUIT PROSPECTS.—At the present time (March 20) the prospects for fruit were never better. Some have feared that the cold storm of March 15 and 16 would injure the buds. But this is not the case. In fact, there was no danger at all. The buds are still dormant, and the ice with which they were encased so much from injuring them acted as a protection from the cold. They would have stood a very much lower degree of cold than any to which they were subjected. Later in the season, after the buds had started, such a coat of ice might have proved injurious.

We hear some complaints that the branches of trees in Western New York, especially of peaches, were much broken by the wind while encased in ice, but trust, and believe, that the damage is not as serious as was at first anticipated. Everything is yet favorable for a great fruit year.

AGRICULTURAL BOOKS PUBLISHED IN 1861.—A writer in the *Country Gentleman* gives the following list of those that were issued during the past year in this country on agricultural subjects. Notwithstanding the excitement of the times, in no year since 1850, if we except 1859, have so many works of this kind been published. We fear, however, that the sales have not been such as to make the publishing investment profitable:

- ALLEN, L. F.—*American Herd Book of Short Horn Cattle*. Buffalo, N. Y.: R. Wheeler & Co. 500 pp. 40 cents.
- ALLEN, STEPHEN L.—*Fibrilla; A Practical Treatise on Fibrilla*. Illustrated. Boston: A. Williams & Co. 75 cents.
- BRIGHT, WM.—*The Single Stem, Dwarf, and Renewal System of Grape Culture*. Second edition. Philadelphia, 1860. 50 cents.
- CLARKE, W. S.—*Report on Horses*, submitted to the Massachusetts Board of Agriculture. Boston: William Clarke. 84 pp.
- EMERSON, GEORGE B., and FLINT, CHARLES L.—*A Manual of Agriculture, for the School, the Farm, and the Kitchen*. Boston: Swan, Brewer & Tilden. 306 pp. 75 cents.
- GRAY, ASH. M. D.—*How Plants Grow: A Simple Introduction to Structural Botany*. With a Popular Flora, or an Argument and Description of Common Plants, both Wild and Cultivated. Illustrated. Fifth edition. New York: H. P. Plimney & Co. 75 cents.
- GOODALE, S. L.—*The Principles of Breeding; or, Glimpes of Physiological Laws involved in the Reproduction and Improvement of Domestic Animals*. Boston: C. Nichols, Lee & Co. 164 pp. 75 cents.
- HARRIS, JOSEPH.—*The Rural Annual and Horticultural Directory for 1862*. Illustrated. Rochester, N. Y. 125 pp. 12 cents.
- HARRISON, J. S.—*The Bee Keeper's Directory; or, The Theory and Practice of Bee Culture*. San Francisco, Cal.: Bancroft & Co. 440 pp.
- JOHNSON, S. W.—*Lectures on Agricultural Chemistry: Delivered before the Smithsonian Institute at Washington*.
- KLIPPART, J. H.—*The Principles and Practice of Land Drainage*. Illustrated. Cincinnati, Ohio; Robert Clark & Co. 125 pp. \$1.25.
- LAWES, J. B.—*On the Sources of the Nitrogen of Vegetation*. Philadelphia.
- MATTHEW, EDWARD.—*The Illustrated Horse Doctor*. With a complete account of the diseases of the Horse, and the mode of Treatment. New York: D. Appleton & Co. 526 pp. \$2.50.
- ROWLANDSON, THOMAS.—*The Sheep Breeder's Guide. Rules for the Management and Breeding of Sheep, and a Description of the Varieties best Adapted to California, Oregon, and Washington Territory*. San Francisco: J. Q. A. Warren. 150 pp. \$1.25.
- RANDOLPH, MISS C. J.—*The Parlor Gardener; A Treatise on the Culture of Ornamental Plants*. Boston: J. L. H. & Co. 75 cents.
- THOMAS, J. J.—*The Illustrated Annual Register of Rural Affairs for 1862; containing Practical Suggestions for the Farmer and Horticulturist*. Albany, N. Y.: L. Tucker & Co. 144 pp. 25 cents.
- TUTTLE, J. H.—*Barrie's Arabian Method of Horsemanship*. 50 cents.
- TENBROOK, J. W.—*The Sweet Potato Culturist*. New York: M. Saxton. 95 pp. 25 cents.
- WOOD, A.—*Class Book of Botany; being Outlines of the Structure, Physiology and Classification of Plants*. New York: A. S. Barnes & Burr. \$2.

TEST YOUR SEEDS.—It will often save much vexation and trouble in replanting, if the vitality of seeds was tested before sowing. This can easily be done by placing a few seeds on an inverted piece of sod, covering them with an another piece of light sod, keeping them moderately moist and warm for a short time. Count the seeds before you put them in, and can thus ascertain what proportion will be likely to grow.

VETERINARY SURGEONS.—A correspondent writes us of the great need of skillful veterinary surgeons in the United States and Canada. We fully agree with him, and hope that our young men will turn their attention to this inviting field of professional labors.

TO PREPARE FEATHERS FOR BEDS.—In the February of the *Genesee Farmer* there is an inquiry, "to prepare feathers for beds." In my experience, it is no further care than a good baking, which our and grandmothers effected by putting them in a hot oven, after the bread was taken out, until sufficed to exclude the worm from the end of the feather on our day, when most of us have no brick oven, the object can be attained by placing the bag near a fire for a length of time.

Our beds should be frequently sunned and used to keep the moth from them.—M. L. BEATTY, *Aurora, N. Y.*

Special Notices.

SUPERPHOSPHATE OF LIME.—The testimony in favor of Coe's Superphosphate of Lime, is from the most reliable, and of so conclusive a character; that there should be no hesitation on the part of farmers and others to apply it in the every description of farm crops. LEVI BARTLETT, one of the most intelligent and successful agriculturists in the county, has the following:

WARNER, N. H., Dec. 23, 1861.

COE & CO.:—Your favor of the 14th inst. was duly received in reply to your inquiries about the use and results of Superphosphate of Lime in this vicinity the past Season, I have to say its application gave very general satisfaction—so that the testimony is strongly in favor of its use, and I used it the past season with purchase more largely next

Superphosphate was mostly used for the corn crop; some farmers estimating the increase of the crop at least 25 per cent. I used a bag of your brand at Manchester, last spring, and got of Peruvian Guano. I experimented with the two in equal quantities, on different soils and crops—such as corn, potatoes, beans and turnips. In every instance the Superphosphate exhibited the most marked effects.

There has been but little Superphosphate used in this vicinity this spring, and that mostly on the corn crop. I have not yet had my experiments would have shown it equally valuable for our farm crops—and much more so on the turnip tribe. I used it freely in growing the Sweet German turnip, averaging twice the size of any grown in previous years on similar land and culture, except the Superphosphate. I am aware of the importance attached to Superphosphate in the raising of the growth of turnips and other root crops. The plants are the same the world over. The same manure is useful on the long-cultivated soil of Old England, and equally useful on the long-cultivated soil of New England.

Among the artificially prepared manures in England, Superphosphate has a well deserved and high standing.

For some idea of the expenditures of British farmers for Superphosphate and superphosphate of lime, I will give the following recently employed by Professor ANDERSON, of Glasgow, in "Analysis and Valuation of Manures":

Amount of bone dust, 40,000 tons, at £6.....	£240,000
Amount of superphosphate, made from bone and ashes.....	770,000
Amount of superphosphates from coprolites....	360,000

£1,370,000

There are six million eight hundred and fifty thousand, annually expended for bone and superphosphate for manuring their acres." English, Irish and Scotch farmers find it for the most part to purchase largely of commercial manures in addition to that can be made upon their farms, which is generally with the most scrupulous care and economy. It will be for our New England farmers to carefully test the experience of superphosphate.

(Signed) LEVI BARTLETT.

THE Sudden changes of our climate are sources of many BRONCHIAL and ASTHMATIC AFFECTIONS. Experience has proved that simple remedies often act speedily and when taken in the early stages of the disease, recourse need not be had to "*Brown's Bronchial Troches*," or Lozenges for the Cold, Cough, or Irritation of the Throat be ever so by this precaution a more serious attack may be effectually prevented. *Public Speakers and Singers* will find them of great clearing and strengthening the voice.

From the *Evening Post*, N. Y.

BROWN'S BRONCHIAL TROCHES, advertised in another column, is recommended for public speakers and others, for the colds and to clear the voice. Their efficacy is strongly testified by congressmen, clergymen, and actors and singers who, among the certificates to their merits, we observe let Henry Ward Beecher, N. P. Willis, E. H. Chapin, and others.

NOTE.—As there are many imitations, ask for and obtain

only "*Brown's Bronchial Troches*," which by long experience have proved their value, having received the sanction of physicians generally, and testimonials from eminent men throughout the country. See advertisement in another column.

ADVERTISEMENTS.

A FEW short advertisements of interest to farmers—and only such—will be inserted in the *Genesee Farmer* for twenty-five cents a line, or \$2.50 per square, each insertion, payable in advance. To secure insertion, they should be sent in by the 15th of the previous month. The *Farmer* has large lists of subscribers in every State and Territory, and in all the British Provinces. (It has nearly 5000 subscribers in Canada West alone.) There is no better or cheaper medium for advertising everything of general interest to rural residents in all parts of the United States and Canada.

We will also insert a few "Special Notices," if appropriate to our columns, at fifty cents a line.

MOLE PLOWS—By J. DUNHAM, Ithaca, N. Y. 3—tf

\$100 OR MORE may be made by any LOCAL AGENT, without leaving his home, besides rendering an important service to his neighbors and friends, by selling the **OPORTO Grape Vines**. For terms to agents, address
E. WARE SYLVESTER, Lyons, N. Y.

EMPLOYMENT—A NEW ENTERPRISE. THE FRANKLIN SEWING MACHINE CO. want a number of active Local and Traveling Agents. A liberal salary and expenses paid, or commission allowed. Address, with stamp, HARRIS BROTHERS, Boston, Mass. (*Clip this out for reference*)

NURSERY STOCKS.

CHERRY, Pear and Quince, very first grade, from the Nursery of D. DAUVESSE, for sale by C. RAOUX, 78 Cedar street, New York. Agent for D. DAUVESSE, Orleans, France; FERDINAND and GLOEDE Sablon, France, and JOHN STEWART & SONS, Dundee, Scotland.

BEAN PLANTER—Patented 1860.

WE manufacture the cheapest and best Bean Planter in use. Worked by one Horse. Plants two rows at a time, and in hills. Rows from 28 to 30 inches apart, and hills 14 inches apart. Price \$12. WHITESIDE, BARNETT & CO., Brockport, Monroe Co., N. Y.

ITALIAN BEES.

ITALIAN QUEENS of brilliant color, purity guaranteed, forwarded by express to any part of the United States. Price, \$5 00. Cash to accompany the order.

No Dark colored Queens sent out from our Apiary.
BAKER & TAYLOR,
April—4t Hulmeville, Bucks County, Pa.

GRAPE VINES!

THOSE wishing to plant Vineyards or to buy Grape Vines by the quantity, will do well to apply to the undersigned.

A large and fine stock of Delaware, Concord, Rebecca, Logan, Cuyahoga and Ontario, besides Clinton, Catawba and Isabella, and also a large number of varieties in smaller quantities, are offered at low rates. Address
C. W. SEELYE,
Rochester Central Nurseries.

VERBENAS BY MAIL.

A VERY fine collection of the finest varieties of Verbenas are offered for sale. For description of varieties, send for catalogue.

For \$1, we will send one dozen strong, healthy Plants to any address in the United States, postage paid. Address
C. W. SEELYE,
Rochester Central Nurseries.

French Imported Sugar Cane Seed by Mail.

ROBERT BUIST & SON, Seed Growers, Philadelphia, have just received, per Havre steamer, from Paris, a choice lot of **PURE CHINESE SUGAR CANE SEED**.

which they offer to Farmers and Planters at the following prices:

BY EXPRESS, per lb., 40 cents.
BY MAIL, postage paid, per lb., 60 cents.

Will also receive in two weeks, by sailing vessel, a large quantity, which they will offer to the trade at low rates.

Remittances to accompany orders.

ROBERT BUIST & SON,
SEED GROWERS AND NURSEYMEN,
Philadelphia, Pa.

April—2t

J. M. THORBURN & CO.'S SEED WAREHOUSE,

15 John Street, New York.

SEEDS BY MAIL

SEEDS FOR THE FARMER.

SEEDS FOR THE GARDENER.

SEEDS FOR THE FLORIST.

SEEDS FOR THE NURSERYMAN.

SEEDS FOR THE AMATEUR.

SEEDS FOR THE DEALER.

Send for our DESCRIPTIVE PRICED CATALOGUE OF VEGETABLE AND AGRICULTURAL SEEDS FOR 1862.

Send for our DESCRIPTIVE PRICED CATALOGUE OF FLOWER SEEDS FOR 1862.

The two combined contain the largest collection of seeds to be found in this country, embracing every standard and improved variety, together with all the NOVELTIES OF THE DAY.

GARNET CHILI POTATOES. A seedling introduced by C. E. Goodrich; he claims for it a higher degree of hardness and adaptation to all soils and weather than any other sort known, and in good soils and seasons, and with fair culture, they will yield from 250 to 350 BUSHELS TO THE ACRE.

Price per peck, 50c.; per bushel, \$1.50; per barrel or 2½ bushels, \$4.

All the following varieties of SEEDS mailed, *post-paid*, to any part of the United States, (with the exception of those marked thus *, which may be mailed to those wishing them by this conveyance, at an additional expense of one cent per oz.,) on receipt of the amount annexed:

New Speckled Lima Beans.....	per pkt.	25	Cts.
New Corrugated Pole do.....	do.	25	
Thorburn's Nonpareil Cauliflower.....	per oz.	75c.	do. 10
Early Paris do.....	do.	75c.	do. 10
White Giant Solid Celery.....	do.	25c.	do. 5
Improved N. Y. Purple Egg Plant.....	do.	60c.	do. 5
Early Winnings adt Cabbage.....	do.	20c.	do. 5
New Cottage's Kale.....	do.	20c.	do. 5
Early Vienna Kohi Rabi.....	do.	20c.	do. 5
New Jersey Hybrid Cucumber (very long).....	do.	30c.	do. 5
Early Curled Silesia Lettuce.....	do.	20c.	do. 5
New White Japan Melon (early).....	do.	25c.	do. 25
Huntington do. (very large).....	do.	25c.	do. 25
Strawberry Watermelon.....	do.	25c.	do. 25
French Scarlet Turnip Radish.....	per oz.	10	
New Madras (edible pod) Radish.....	per pkt.	10	
Honolulu Xocarine Squash.....	per oz.	80	
Frijole Island Tomato.....	per oz.	25c.	per pkt. 5
French Upright do.....	do.	15	
Berlin Teltan Turnip.....	per oz.	10	
*Extra Early Princess Peas.....	per qt.	30	
*Champion of Scotland, Eugenie and Napoleon Peas, each.....	do.	50	
Large Sweet Mountain Pepper.....	per oz.	40c.	per pkt. 5
*Large Red Onion.....	per lb.	75c.	per oz. 10
Extra Early Turnip Beet.....	do.	75c.	do. 10
Borage.....	do.	20	
Manmoth German Cabbage (extra).....	do.	25	
*Long Orange Carrot.....	per lb.	75c.	do. 10
*Balsam Fir Seed.....	do.	2.00	do. 25
*Ailanthus Seed.....	do.	2.50	do. 25
*Honey Locust Seed.....	do.	60	do. 10
*Buckthorn Seed.....	do.	1.00	do. 10
*Black Austrian Pine Seed.....	do.	3.00	do. 25
*Stone Pine Seed.....	do.	1.50	do. 15
*European Larch Seed.....	do.	1.50	do. 20
*Chinese Arbor Vitæ Seed.....	do.	3.00	do. 25
*Virgilia lutea, or Yellow Wood Tree (rare).....	do.	1.00	do. 10
*Apple Seed.....	per bush.	\$5	per qt. 25
*Plum Pits.....	do.	40	
Strawberry Seed, 12 varieties each.....	per pkt.	25	
Connecticut Seed Leaf Tobacco.....	per oz.	25	
*Alsike Clover.....	per lb.	75	
*Scarlet Flowering Clover.....	do.	50	
*Lucerne.....	do.	25	
*Chinese Sugar Cane.....	per bush.	\$4	per qt. 25
*Chicoree Seed.....	per lb.	75c.	per oz. 10
Beautiful Scarlet Chinese Egg Plant.....	per pkt.	10	
Convolvulus tricolor monstrosus (splendid).....	do.	10	
Callirrhoe pedata (beautiful).....	do.	25	
Dianthus Heddewigii.....	do.	25	
do. do. Double.....	do.	25	

Dianthus laciniatus.....	per pk	
English Prize Hollyhock (fine).....	do.	
Delphinium formosum (splendid).....	do.	
do. tricolor.....	do.	
Auricula flowered Sweet William.....	do.	
Ipomæa limbata elegantissima (splendid).....	do.	
Ipomæa hederacæe.....	do.	
Splendid Crimson Flax (beautiful).....	do.	
Linum Lewisii Variegata (choice).....	do.	
Oboliscaria pulcherrima.....	do.	
Splendid Hybrid Pansy.....	do.	
New Early Dwarf Carnation.....	do.	
Clintonia pulchella atropurpurea.....	do.	
do. Azurea grandiflora.....	do.	
Lycnis Haageana.....	do.	
Fringed Chinese Primrose.....	do.	
Salvia Splendens.....	do.	
do. Argentea.....	do.	
do. Amabilis.....	do.	
Splendid Double Zinnia.....	do.	
Canna Warszewiczii.....	do.	
New Carmine Scabious.....	do.	
Maurandia Barclayana.....	do.	
Beautiful Camellia Balsams.....	do.	
Lilac Giant Emperor Aster.....	do.	
Perilla Nankinensis (very ornamental foliage).....	do.	
Didiscus cærulea, beautiful, (blue annual).....	do.	
Abrus umbellata (splendid annual).....	do.	
Centranthus macrostemon.....	do.	
Beautiful Collections Phlox Drummondii (5 varieties).....	do.	
do. do. Portulacæa (7 varieties).....	do.	
do. do. of Flower Seeds (100 varieties).....	do.	
do. do. do. (51 varieties).....	do.	
do. do. do. (25 varieties).....	do.	
do. do. do. (10 varieties).....	do.	

SPLENDID FRENCH HYBRID GLADIOLUS.

From \$1 to \$20 per dozen—for varieties and descriptive our Flower Seed Catalogue.

J. M. THORBURN & CO.
15 John Street, New York

N. B.—*WHITE SILESIAN SUGAR BEET, pure and genuine per lb., or at reduced rates in large quantities.

ROOTS FOR FEEDING STOCK

1,000 lbs. LONG RED MANGEL WURZEL BEET.	
1,500 lbs. WHITE SUGAR BEET.	
5-10 lbs. LONG ORANGE CARROT.	
5,000 lbs. PURPLE TOP YELLOW RUTA BAGA.	
10,000 lbs. RED TOP "STRAP-LEAVED" TURNIP.	

The Beets are Imported French; Carrots and Turnips own growth—all of which are WARRANTED first quality.

Forwarded by Express at 40, 50, 75, 40 and 40 cents per ton.
Forwarded by Mail, "postage paid," at 60, 50, 95, 60 cents per lb.

Wholesale quantities at greatly reduced rates. 1 tances to accompany all orders.

ROBERT BUIST & SON,
SEED GROWERS AND NURSERYMEN
Philadelphila,

April—21

GRAPE VINES BY MAIL.

ONE DOLLAR will pay for any one of the following varieties of Vines, which will be sent by mail, post paid, any part of the country:

Concord, Crivelin, Cuyahoga, Delaware, Diana, Elizabeth, Hartford Prolific, Rebecca, Logan, Ontario.

Parties wishing Catalogues will be furnished on application. Address C. W. SEELYE, Rochester Central Nurseries.

NANSEMOND SWEET POTATOES.

NORTHERN Farmers can grow no more profitable crop. Plants from 1st May till July. Price, 40¢, \$1 \$2; 5,000, \$9; 10,000, \$15. Packed and guaranteed to good condition throughout the country.

Directions for Cultivation and Preservation sent. Sent for one. Address M. M. MURRAY, April—21 Loveland, Clermont Co., O.

WARS

AND rumors of wars have reduced the price of N Trees. For Price List of Lyons Nursery, address E. WARE SYLVESTER Lyons, N.

FOR SALE.—Thirty acres of land, at Harlem, Ill., eight from Chicago, and near the Railroad Station. Good Orchard or Market Garden. Price, \$60 per acre, with easy of payment. Apply to E. NORTH, Clinton, Oueda Co., N.

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THE GROVER & BAKER S. M. CO.

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GROVER & BAKER STITCH,

NEW AND SUPERIOR

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ADAPTED to all varieties of sewing. Much more Simple,
Durable, Noiseless and Perfect than any other "lock-stitch"
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The Grover & Baker machines have taken the first pre-
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DWARF BROOM CORN SEED.

A NEW variety, which seldom grows more than four feet
high, and produces a greater weight of corn and of super-
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ROGERS & GEST,
April.—21 No. 193 Market St., Philadelphia, Pa.

A NEW GOOSEBERRY AND NEW RASPBERRY.

NATIVES of the Great West. The Gooseberry is smooth,
prolific, larger than Houghton, of fine flavor, and free from
insects. The Raspberry is a Black Cap, better than Doolittle's
approved. Circulars on application.
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NEW Verbenas, Petunias, Geraniums, Dahlias, Heliotropes,
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Tuberose Bulbs.
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A LARGE assortment of Prairie and other Flower and Gar-
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Send for a Catalogue.
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HAVE for sale a few BULLS and BULL CALVES, COWS,
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LARGE VINES—Of the CONCORD, CREVELIN, DELA-
WARE, DIANA, HARTFORD PROLIFIC and REBEC-
CA. Prices low. Send stamp for Catalogue of over eighty va-
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PATENT-RIGHTS for States and Counties and Machines are
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to
R. W. EDDISON,
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"A SLIGHT COLD," Cough, Hoarseness,
or Sore Throat, which might be checked with a
simple remedy, if neglected, often terminates
seriously. Few are aware of the importance of
stopping a Cough or a "SLIGHT COLD" in its
first stage; that which in the beginning would
yield to a mild remedy, if not attended to, soon
attacks the lungs.

"Brown's Bronchial Troches" were first introduced eleven
years ago. It has been proved that they are the best article be-
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ARRH, the Hacking Cough in CONSUMPTION, and numerous af-
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Public Speakers and Singers

will find them effectual for clearing and strengthening the voice.

"That trouble in my throat (for which the 'Troches' is a spec-
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"I recommend their use to PUBLIC SPEAKERS."
REV. E. H. CHAPIN.

"Have proved extremely serviceable for HOARSENESS."
REV. H. W. BEECHER.

"Almost instant relief in the distressing labor of breathing pe-
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REV. A. C. EGGLESTON.

"Contain no Opium or anything injurious."
DR. A. A. HAYES, Chemist, Boston.

"A simple and pleasant combination for COUGHS, &c."
DR. G. F. BIGELOW, Boston.

"Beneficial in BRONCHITIS."
DR. J. F. W. LANE, Boston.

"I have proved them excellent for WHOOPING COUGH."
REV. H. W. WARREN, Boston.

"Beneficial when compelled to speak, suffering from COLD."
REV. S. J. P. ANDERSON, St. Louis.

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remedy, giving power and clearness to the voice."

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Minister Church of England,
Milton Parsonage, Canada.

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From Rev. HENRY WILKES, D. D., Pastor Zion Church,
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"When somewhat hoarse from cold or over-exertion in public
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The market is full of imitations, represented to be the same as
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tive of positive injury. Many dealers will recommend inferior
preparations and lower priced articles, affording more profit to
themselves. Ask for and obtain only "Brown's Bronchial Tro-
ches," which by long experience have proved their value, having
received the sanction of physicians generally, and testimonials
from eminent men throughout the country.

Sold by all Druggists and Dealers in Medicine, at 25 cents
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Improved Superphosphate of Lime,

MANUFACTURED and for sale at Division Street Wharf,
Newark, N. J., and by the manufacturer's agents in this and
other States.

CIRCULARS, with particular instructions for use, will be
sent by mail when requested, or on application to his agents.

WM. PATERSON,
The oldest manufacturer of Superphosphate of Lime in the
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April.—31

ITALIAN QUEEN BEES.

I SHALL continue to breed this season from my well known
stock of Italian Bees, imported in March, 1861, by steamer
New York. I guarantee the perfect purity of my Queens, being
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Only Six Live Original Italian Queens

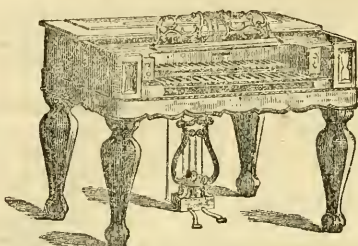
in the United States.

To suit the times, I have reduced my price to \$7.50 for a
Queen and a few hundred workers. For particulars apply to
C. WM. ROSE,

April.—31 63 Exchange Place, New York.

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Warranted for Five Years.



THE Oldest Establishment in the United States, employing 200 men, and finishing 80 instruments per week.

WHOLESALE DEPOTS.

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PRICES OF PORTABLE INSTRUMENTS.

Four Octave, C to C, \$45.
Four and a half Octave, C to F, \$60.
Five Octave, F to F, \$75.
Five Octave, Double Reed, F to F, \$130.

PRICES OF PIANO CASES.

Five Octave, F to F, \$100.
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Five Octave, Two Banks of Keys, \$200.

ORGAN MELODEON.—Two Banks of Keys, Five Sets of Reeds, Eight Stops, One and a Half Octave Foot Pedals, One Set of Reeds in Pedal Bass Independent, \$350.

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OUR LATEST IMPROVEMENT—PRINCE & CO.'S GRADUATED SWELL.

Patented September 17, 1861.

This is an entirely new idea, and its want has been noticed by all acquainted with Reed Instruments. The old swell could never be made to operate gradually; the instant the pedal was touched for opening it, the change would be instantaneous and abrupt.

Our NEW SWELL is constructed on scientific principles, and we are satisfied, by our untiring study and experiments, that it is the only one by which the tone of Reed Instruments may be graduated from a mere whisper to the full power of the instrument, and *vice versa*. The volume of tone is also very much increased by this swell, and is now all that we could desire.

This, in connection with our DIVIDED SWELL (which we patented in 1855), will be added to all the Melodeons which we manufacture in the future, and without extra charge. One other feature in our Melodeons is the IMPROVED VALVE OR PALLET, being a combination of cloth and leather, prepared expressly for the purpose. This valve we have used for the past three years, and we find it to be the very thing that has been so long needed as a substitute for the India Rubber Valve, which has been in general use since Melodeons have been manufactured, and which has caused so much trouble by the dissolving and sticking of the India Rubber. All of our instruments are now finished with this improved valve, and we can recommend them with confidence.

Persons unacquainted with the Melodeon and its history, will bear in mind that we are the pioneers and leading manufacturers, not only in the United States, but in the world. We commenced the manufacture of Melodeons in the fall of the year 1847, and since that time have finished and sold TWENTY-SEVEN THOUSAND. These instruments are now in use mostly in the United States and Canada, but also in Europe, Asia, Africa, South America and the West Indies, and from all these quarters we have the most flattering testimonials of the high estimation in which they are held. AT ALL INDUSTRIAL EXHIBITIONS THEY HAVE INvariably BEEN AWARDED THE HIGHEST PREMIUM WHICH EVER EXHIBITED IN COMPETITION WITH OTHERS.

We shall take pleasure in forwarding by mail (at our own expense) our Illustrated Catalogue, in which every instrument we

manufacture is fully described, and illustrated by elegant engravings.

All Melodeons of our manufacture, either sold by us or dealers in any part of the United States or Canada, are warranted to be perfect in every respect, and should any repairs be necessary before the expiration of five years from date of sale, we hold ourselves ready and willing to make the same free of charge, provided the injury is not caused by accident or design.

Agents for the sale of our Melodeons may be found in all the principal towns of the United States and Canada.

Address either

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GEO. A. PRINCE & CO., 87 Fulton street, New York.

GEO. A. PRINCE & CO., 82 Lake street, Chicago, Ill.
Or either of the above wholesale agents.

Sale of Imported Thorough-bred Cattle.

THE subscriber offers for sale the whole of his lately imported herd of Improved Short-horns, with their produce, chiefly of the Booth blood. Full pedigrees for each, authenticated by reference to Coates' English Herd Book—to be seen till the 15th of April next.

G. H. PHILLIPS,

Woodford, Ogdensburg, N. Y.

P. S. Five of the cows have been served this year by an imported Bull, and are supposed to be with calf.

FOR SEWING MACHINES.

JONAS BROOK & BROTHERS'

PRIZE MEDAL SPOOL COTTON,

270 or 500 yard spools, White, Black, and Colored.

FOR MACHINES, use BROOK'S PATENT GLACE for upper thread, and BROOK'S SIX CO. D RED TICKET for under thread. Sold by all first class dealers in city and country; also in cases of 100 dozen each, as per numbers, by WM. HENRY SMITH, Sole Agent, 26 Vesey street, New York. Ja—1y

PERUVIAN GUANO,

GOVERNMENT Brand and Weight,
SUPERPHOSPHATE OF LIME.

BONE DUST,

LAND PLASTER,

A. LONGETT,

For sale by

84 Cliff street, corner of Fulton, N. Y.

16 ACRES STRAWBERRIES.

JENNY LIND (very early and prolific), WILSON'S ALBANY and PYRAMID CHILLIAN, plants \$3 per 1,000, and 10,000 for \$25.

CRANBERRY PLANTS, \$2 per 1,000.

RASPBERRIES (six varieties), \$10 to \$20 per 1,000.

Address A. M. PURDY,
April—1st South Bend, Indiana.

LAWTON BLACKBERRIES AND RASPBERRIES.

I WILL sell Lawton Blackberries this season for \$3 per 1,000, or \$20 per 1,000—fine plants.

RASPBERRIES.

Merrill d'4 Seasons, Belle d'Fontenay (everbearing), and Purple Cane, \$1 per doz., \$5 per 100. Kirland's Seedling and Doolittle's Black, \$3 per 100, \$20 per 1000. H. B. LUM,
Sandusky City, Ohio.

FOR SALE—By the subscriber, a MORGAN BLACK HAWK STALLION, sired by Black Hawk, Jr., is five years old, and stands fifteen and a half hands high. Is a beautiful mahogany bay, with black legs, mane and tail. Weighs about 1100 lbs. when in good condition. Is compactly built, possessing remarkable intelligence and muscular powers, having a strong, vigorous constitution. Has an easy, open gait, and bids fair to make a fast traveler.
JACOB HOUSTATER,
March.—31st Pekin, Niagara Co., N. Y.

ONTARIO GRAPES. NATIVE WINES.

GOOD, strong, well-sorted Vines, true to name, and grown by myself from wood from the original vine. Price, \$2 each, or \$16 per dozen.

PRESBURY'S NATIVE WINES—The pure juice of the Grape. Isabella, Port and Sherry received the first premium at the New York State Fairs of 1860 and '61. \$3 per gallon, \$7.75 per doz.

OTIS F. PRESBURY,
Prospect Hill Vineyard, Buffalo, N. Y.

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A GOOD assortment, for sale by
A. LONGETT, 84 Cliff street, cor. of Fulton, New York.

Everybody should have a Copy.

Rural Annual and Horticultural Directory, FOR 1862.

PRICE ONLY TWENTY-FIVE CENTS!

THE *Rural Annual and Horticultural Directory* is a book of 120 pages, published at the beginning of each year, at the office of the *Genesee Farmer*. It is filled with matter interesting and useful to every one engaged in the culture of the soil, in town, village, country or city.

Among the contents will be found articles on the following subjects:

PLANTING FRUIT TREES;
ANNUALS AND THEIR CULTURE;
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MANUFACTURE OF DOMESTIC WINES;
CULTURE OF DWARF AND STANDARD PEARS;
CULTIVATION OF THE CEREALS;
ON CIDER MAKING;
AMOUNT OF ROOTS FROM CLOVER AND GRASSES;
CUTTING POTATOES FOR PLANTING;
CHINESE HOGS;
HENS AND THEIR MANAGEMENT;
CULTURE OF THE PEACH IN THE MIDDLE STATES;
COVERING GRAPE VINES IN WINTER;
TREATMENT OF MILCH COWS;
APPLICATION OF MANURE;
CULTURE OF WHITE BEANS;
THE ENGLISH MUTTON SHEEP,

With a great variety of other matters of general interest.

Price only 25 cents. It will be sent prepaid by return mail to any address. Send the money in postage stamps.

Address JOSEPH HARRIS,
Publisher of the *Genesee Farmer* and *Rural Annual*,
Rochester, N. Y.

☞ The *Rural Annual* has been published seven years. The seven numbers—for the years 1856, '57, '58, '59, '60, '61 and '62—will be sent, prepaid, by return mail, to any address for \$1.40.

Marblehead Cabbage Seed.

STONE MASON CABBAGE.—I have received numerous letters from farmers residing in Canada and all the Northern, Middle and Western States, who purchased seed last season, expressing the highest satisfaction with this Cabbage—its reliability for heading, the large size of the head, the peculiar sweetness and hardness of the head, and first-rate keeping qualities. A large number took the first premiums at the Fairs of their respective counties. A number write that every plant set a handsome head; one that he sold \$50 worth from less than a seventeenth of an acre of land. I have copied a number of these letters into my Seed Catalogue.

MARBLEHEAD MAMMOTH DRUMHEAD.—Numbers have written me of their success with this monster variety; that they raised cabbages weighing from 25 to 45 lbs.—the general wonder of the community. They have been raised weighing 62 lbs. I regret that I have but a limited supply of seed this season. I will fill orders as long as it lasts.

Stone Mason Cabbage, per ounce, 1 prepaying postage, 25 cts.; per lb., \$2.67. Marblehead Mammoth, per package of about 1000 seeds, 25 cents. Hubbard Squash, per package, 12 cents.

The seed is of my own raising, and warranted of the purest quality grown.

☞ CATALOGUES forwarded to applicants, of every variety of Garden seeds and many hundred varieties of Flower seeds.

JAMES J. H. GREGORY,
Marblehead, Mass.

March.—31

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FIVE CENT MONTHLY.

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\$100 PER MONTH—Made by any one with Stencil Tools. For a circular explaining the business.

Address JOHN M. LIKEN,
May.—15, Lawrence, Mass.

Books for Farmers and Fruit Growers.

THE following works on Agriculture, Horticulture, &c., may be obtained at the Office of the *GENESSEE FARMER*:

American Florist's Guide..	75	Quimby's Mysteries of Bee-keeping Explained.....	1 00
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Every Lady her own Flower Gardener.....	50	(First five vols. do, 1856-7-8-9 and 60, sent for.....	1 00
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Nash's Practical Horse Fancier.....	50	The Horse and his Diseases	1 00
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☞ Any of the above named works will be forwarded by mail post-paid, on receipt of the price specified.

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MANUFACTURE Endless Chain or Railway Powers, for One, Two and Three Horses; Four and Eight Horse Lever Powers, Combined Threshers and Cleaners, Threshers and Vibrating Separators, Clover Machines with Huller and Cleaner combined—also, with Thresher, Huller and Cleaner combined; Wood Sawing Machines, both Circular and Drag; Cider Mills and Corn Shellers combined; Dog or Sheep Powers, &c.

☞ For Descriptions and Prices of above named articles, apply for an Illustrated Circular. Address

G. WESTINGHOUSE & CO.,
March.—31 Schenectady, N. Y.

SEEDS! GARDEN SEEDS!

FROM HALLOCK'S SEED AND AGRICULTURAL WAREHOUSE.—The subscriber will forward by mail, postage paid to any address in the United States, a package of twenty-sixteen papers, well filled with good and reliable vegetable seeds, of good varieties to supply the garden, on receipt of \$1 by mail. A part of the seeds will be substituted if desired. Send on your orders. If you wish any particular varieties, name them and they will be substituted if they are to be had in this market. Address

March.—21* E. D. HALLOCK, AGT., Rochester, N. Y.

Concord Grape Vines.

I WOULD give notice that I shall not be able to supply Vines for any more Vineyards till next fall, when I shall have about 35,000 more vines to sell, 50 per cent. lower than others ask, and on a year's credit! I will, however, sell a few the coming spring, on year old vines, grown in the open air, at \$3 per dozen. The Concord is going up with a rush, ahead of the Delaware, and every other variety.

March.—31 T. B. MINER,
Clinton, N. Y.

The New Lettuce.

TRUE BOSTON CURLED LETTUCE.—I introduce this new variety as surpassing all varieties of the Lettuce family in excellence and elegance. I would invite attention to the rare beauty of its structure and unequalled symmetry of its growth. It is perfectly hardy. Packages containing seed sufficient to supply a family for a season, with directions for cultivation, post paid, 20 cents each; six packages, \$1. Every variety of garden seed for sale. Catalogues gratis, JAMES J. H. GREGORY,
Feb.—21 Marblehead, Mass.

WOOD CUTS FOR SALE.

WE will sell Stereotypes of the Wood Cuts used in the *Genesee Farmer* and *Rural Annual and Horticultural Directory*. A book containing Impressions of over Seven Hundred of these cuts will be sent to those wishing to purchase on the receipt of 50 cents. The book contains an index, showing where descriptions of the cuts will be found.

Address JOSEPH HARRIS, ROCHESTER, N. Y.

28 CENTS EACH.—MICROSCOPES magnifying 500 times. Five, of different powers, \$1. Mailed free.
Mar.—31* F. H. BOWEN, Box 220, Boston, Mass.

PREMIUMS!

PREMIUMS! PREMIUMS!

To Every Reader of the Genesee Farmer.

ALL PRIZES AND NO BLANKS!

How to Do Good and Get Pay for it.

GREAT PAY FOR LITTLE WORK!

BEING desirous of doubling the circulation of the *Genesee Farmer* the present year, we have concluded to offer the following Premiums to those who send us subscribers:

Book Premiums.

1. To every person who sends us the name of one subscriber to the *Genesee Farmer* for the year 1862, and 50 cents, we will send a copy of *The Young Housekeeper and Dairymaid's Directory*, by Mrs. ELIZA A. CALL, or one copy of the *Rural Annual and Horticultural Directory* for 1860 or 1861, sent prepaid by return mail.
 2. To every person who sends us two subscribers and one dollar, we will send the *Rural Annual and Horticultural Directory* for 1860 and 1861, prepaid by return mail.
 3. To every person who sends us three subscribers and \$1.50, we will send a copy of Liebig's Animal Chemistry, or three numbers of the *Rural Annual*.
 4. To every person who sends us four subscribers and \$2.00, we will send one copy of the *Farmers' Practical Horse Farriery*, prepaid, by return mail.
 5. To every person who sends us five subscribers and \$2.50, we will send one copy of the *Genesee Farmer* for 1856, nicely bound in stiff paper covers, prepaid, by return mail.
 6. To every person sending us six subscribers and \$3.00, we will send Rogers' Scientific Agriculture, or a handsomely bound volume of the *Genesee Farmer* for 1860, prepaid, by return mail. [The invariable price of the latter is \$1.00, and there is no cheaper work.]
 7. To every person sending us seven subscribers at 50 cents each, we will send one copy of Mrs. S. J. HALE's Modern Cookery, prepaid, by return mail.
 8. To every person sending us eight subscribers at 50 cents each, we will send a copy of *The Horse and his Diseases*, or a copy of *Everybody's Lawyer*, prepaid, by return mail.
 9. To every person sending us twenty subscribers at 50 cents each, we will send a copy of *The Rural Poetry of the English Language*, the best and handsomest work of the kind published.
 10. To the person sending us eighty subscribers at 50 cents each, we will send Morton's Cyclopedia of Agriculture, prepaid, by return mail. This is the best work on agriculture extant and sells for \$18.00.
- Seeds, Grape Vines, Fruit Trees, etc.**
11. To every person sending us two subscribers, at 50 cents each, we will send a package of Flower Seeds, containing six papers of the choicest and best seeds imported from France and England, and which sell at from six to ten cents each. They will be forwarded, prepaid, by return mail.
 12. To every person sending us three subscribers at 50 cents each, we will send, prepaid, by return mail, ten papers of choice imported Flower Seeds.
 13. To every person sending us four subscribers at 50 cents

each, we will send sixteen papers of choice imported Flower Seeds, prepaid, by return mail.

14. To every person sending us five subscribers at 50 cents each, we will send a Delaware Grape Vine, prepaid, by mail.
15. To every person sending us eight subscribers at 50 cents each, we will send two Delaware Grape Vines, prepaid, by mail.
16. To every person sending us twelve subscribers at 50 cents each, we will send three Delaware Grape Vines, prepaid, by mail.
17. To every person sending us fifteen subscribers at 50 cents each, we will send four Delaware Grape Vines, prepaid, by mail.
18. To every person sending us seventeen subscribers at 50 cents each, we will send five Delaware Grape Vines, or one each of Delaware, Concord, Rebecca, Hartford Prolific and Crivelen; and for a larger club in the same proportion.
19. To every person sending us fifty subscribers at 50 cents each, we will send eight dollars worth of Fruit or Ornamental Trees, Grape Vines, Strawberry Plants, etc.
20. To every person sending us sixty subscribers at 50 cents each, we will send ten dollars worth of Fruit Trees, etc.
21. To every person sending us one hundred subscribers at 50 cents each, we will send twenty dollars worth of Fruit Trees, Grape Vines, Strawberry Plants, etc.

It must be borne in mind that these premiums are offered for subscribers at fifty cents each. All subscriptions will commence with the January number.

Premiums at Regular Club Rates.

1. To every person who sends us eight subscribers, (at our lowest terms of thirty-seven and a half cents each,) we will send, postage paid, a copy of our beautiful twenty-five cent book, the *RURAL ANNUAL AND HORTICULTURAL DIRECTORY* for 1862.
2. To every person who sends us sixteen subscribers, (at our lowest club terms of thirty-seven and a half cents each,) we will send one extra copy of the *GENESEE FARMER*, and one copy of the *RURAL ANNUAL*, prepaid, by mail.
3. To every person sending us twenty-four subscribers, (as above,) we will send two extra copies of the *FARMER*, or two copies of the *RURAL ANNUAL* and one extra copy of the *FARMER*.
4. To every person sending us thirty-two subscribers (at 37½ cents each), we will send one copy of Mrs. HALE's Modern Cookery Book, prepaid, by return mail.
5. To every person sending us forty subscribers (at 37½ cents each), we will send one copy of *Everybody's Lawyer*, or *The Horse and his Diseases*, prepaid, by return mail, or sixteen packages of Flower Seeds—and to larger clubs at the same rate.

Our Agents can club the *Genesee Farmer* and *Rural Annual* together at 50 cents the two.

Money may be sent at the risk of the Publisher

Address **JOSEPH HARRIS,**
PUBLISHER AND PROPRIETOR OF THE *GENESEE FARMER*,
March 1, 1862. ROCHESTER, N. Y.

THE GENESEE FARMER.

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TERMS—INVARIABLY IN ADVANCE—FIFTY CENTS A YEAR: Five Copies for \$2; Eight Copies for \$3, together with a *Rural Annual and Horticultural Directory* to the person getting up the club. It is not necessary that the club should be all at one office—we send wherever the members of the club reside.

Specimen numbers sent free to all applicants.

All friends of rural improvement are respectfully solicited to obtain and forward subscriptions.

The Postage on the *Genesee Farmer* is only 8 cents a year in the State of New York, and 6 cents a year in other States.

Papers are sent to the British Provinces at the same rates as in the United States. No extra charge for American postage.

The address of papers can be changed at any time.

Address **JOSEPH HARRIS,**
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AND THE PRACTICAL AND SCIENTIFIC FARMER'S OWN PAPER

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THE VALUE OF COMMERCIAL MANURES.

DR. EVAN PUGH, President of the Agricultural College of Pennsylvania, communicates to the *Country Gentleman* the result of analyses made in the College laboratory of some of the artificial manures offered for sale in this country.

He adopts Prof. S. W. JOHNSON's estimate of the value of the leading ingredients found in manures, as follows:

ash (as in wood ashes),.....	4	cts. per lb.
phosphoric acid in raw or burned bone phosphates,.....	4½	" "
phosphoric acid in combinations soluble in water (as in Superphosphates),.....	12½	" "
nitrogen in forms easily soluble.....	17	" "
phuric acid.....	1	" "

This is as fair an estimate as could be made. It is somewhat higher than that usually adopted in England, and is, therefore, favorable to the manufacturers.

The following artificial manures have been analyzed and their composition accurately determined. The amount of ingredients which they contain being thus known, nothing is easier than to ascertain their exact value. Full details of their composition are given, and the results are as follows:

Manures.	Selling price.	Real value.
Woods' Superphosphate.....	\$45 00	\$37 50
Ger & Butts' Superphosphate.....	45 00	23 80
Wagh & Son's Raw-bone Phosphate.....	45 00	22 40
Wagh & Son's Ground Raw-bone.....	35 00	36 20
Ger & Clarke's Phosphoric Fertilizer.....	40 00	25 40
Ger & Clarke's Meat and Bone Compost.....	25 00	12 60
Woods' Nitrogenized Superphosphate.....	50 00	14 60
Woods' Company's Poudrette.....	2 pr bbl.	11 40
Peruvian Guano.....	60 00	62 50
Government Peruvian Guano.....	60 00	37 60
Isle of Man Ocean Guano.....	50 00	45 60

Peruvian guano and the ground raw-bones are the only articles that stand the test. None of the others are worth what is charged for them. Woods' superphosphate comes nearest to the mark. Dr. PUGH says:

The greatest cheat in the whole lot is that of Woods' so-called nitrogenized superphosphate. It is sold for nearly *three times as much as it is worth*, and when sold contains so much worthless matter that the cost of transporting the latter would very materially increase the cost of what little valuable

material was obtained in it. The manufacture and sale of such a manure at such a price, implies either gross ignorance or dishonesty, and points out the necessity of our having some means of protecting the farmer from the shameful imposition that sales of such manures inflict. The sale of every 100 tons of such a manure annually would imply a loss of at least \$3,500 per year to the farmer, to say nothing of the still greater loss of crops resulting from the use of such a worthless manure.

The Lodi Company's poudrette is sold by measure, and it is, therefore, not easy to determine its real value. The agent of the Company informs us that it weighs about 220 lbs. per barrel, say nine barrels in a ton. Dr. PUGH gives the price at \$2 per barrel. This would be \$18 per ton, while the real value is only \$11.40. When seven barrels are taken, the price in New York is \$1.50 per barrel, or \$13.50 per ton. This, compared with many others, is not a very wide difference between the selling price and the estimated value; but it is a bulky article, and the freight, *in proportion to its value*, would be much higher than on Peruvian guano. The real question is: what is a manure worth, delivered *on* the farm, and what can it be obtained for—not in New York, *but on the farm*. A ton of ordinary barn-yard manure, according to the above estimate, is worth \$2. But if it had to be transported any long distance, it would not be worth anything—the cost of freight would be more than the value of the manure. In estimating the value of poudrette, therefore, or any other bulky fertilizer, this cost of freight is a very important point.

In regard to MAPES' manures, little need be added to the remarks of Dr. PUGH. The Boston *Cultivator*, of April 12, in alluding to the above facts, says:

Some persons may remember that examinations made by Mr. HARRIS, of the *Genesee Farmer*, and Prof. S. W. JOHNSON, of Yale College, some years ago, of Mapes' superphosphate and other manures manufactured by him, presented similar discrepancies to the above, in regard to the selling price and calculated value.

This is true, and if farmers *will* waste their money in purchasing such worthless stuff, we can not help it. We have for years done all that we could to put them on their guard.

It will be seen even that Peruvian guano differs greatly in composition and value. One sample analyzed was worth \$62.80 per ton, while another, selling at the same price, was worth only \$37.60. The large dealers in England have the cargoes analyzed before purchasing, and this the only way of securing a good article.

The consumption of artificial fertilizers in this country is destined to be very large, and the agricultural press should fearlessly expose all attempts at imposition. Let it be distinctly understood that a good chemical analysis will show the real value of a manure with infallible accuracy, and let such men as Prof. S. W. JOHNSON and Dr. EVAN PUGH be encouraged to examine every commercial manure found in the market, and we shall soon be rid of the imposters who rob the farmers of their hard earnings. The honest and intelligent manufacturers and dealers should themselves use their influence in this direction. Let them have their manures analyzed, and then give a *guarantee* that such represents their real composition, and if such should not prove to be the case, they might be sued for damages.

A short time ago, a manufacturer of a new fertilizer in New York asked us to advertise and recommend his article. He had a number of testimonials from those who had used it, and was himself eloquent in its praise. "That is all very well," we remarked, "but all know how easy it is to get testimonials. Send a fair sample to Prof. S. W. JOHNSON, of Yale College, and if he finds 10 per cent. of ammonia in it, we will give you a good puff without charge." If the agricultural press will adopt a similar rule, manure dealers will soon understand that they can not impose upon farmers with impunity.

THE WHEAT CROP IN ENGLAND.

THE *Mark Lane Express* issued a circular, addressed to reliable parties in different parts of England, asking, "Is there a good breadth of wheat sown in your neighborhood?" and "Has it been put into the ground in good condition?"

Two hundred and ninety-nine answers were received, from which it would appear that an unusual breadth of land has been sown to wheat, and that the plants on the whole look exceedingly well. The editor of the *Express* remarks:

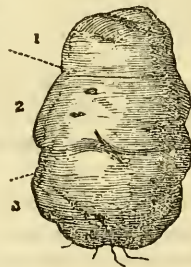
Referring again to the tables, it will be seen that

the breadth of land now under wheat is unusually large. This may be ascribed in a great measure to the small quantity that was sown during the previous year, from the unfit state of the land. Not only has a *very large* breadth been sown, but the seed has been put in under the most favorable circumstances. If, to some extent, rather too late (as a rule), yet the mildness of the winter has favored it, and the plant generally is strong, healthy, and without breaks in the rows. It would be needless to give any condensed table of this schedule, as, with the exception of about four or five cases, the whole of the returns agree in their accounts, both as to the largeness of the breadth and the wonderfully fine appearance of the plant. If no disaster intervene between now and harvest, there is the prospect of this important product yielding the largest amount of produce that ever was known.

CUTTING POTATOES—EARLY AND LATE CROPS.

WE have in previous volumes of the *Genesee Farmer* alluded to the fact that the rose end of the potato will start sooner and produce an earlier crop than the middle or heel of the potato.

The reason assigned for this by Dr. LINDLEY, was that the rose end was better matured. We thought



1. Rose End. 2. Centre
3. Heel End.

that this could not be the true reason, from the fact that the rose end was the latest formed portion of the potato and could, therefore, hardly be supposed to be as well matured as the heel end, which was older. We thought the true explanation was, that before a seed could germinate it must be decomposed. "That which thou sowest is not quickened except it die." At the rose end being *less* matured—the elements being in a cruder form and less organized—the seed would decay sooner and the plants would start earlier.

Since these views were expressed—and which, true, are of much practical and scientific importance—we have met with the following fact which seems to confirm them. Dr. FROMBERG has analyzed the different parts of four varieties of potatoes, and in each case he found that the rose end contained more *inorganic* matter and water than the heel end—in other words, it was less organized.

Prof. WILSON, in his recent work on "Our Farm Crops," in commenting on these results, says that "help to strengthen the claims which science has upon all engaged in farming pursuits, by giving them a solution of many apparently mysterious circumstances connected with their daily avoc-

tions. Now, to an observant man, this identified difference may be made serviceable in this way: with one tuber he has the means of raising three distinct plants—from the “rose end,” from the “centre,” and from the “heel sets”—each of which will come to maturity at a different period, the produce of the “set” from the “rose end” coming forward first, that of the centre being next, while the “set” cut from the “heel end” will require some two or three weeks longer before it is ready for harvesting. In cutting the sets for planting in districts where it is important that the crop should come to maturity at a given time, this lower portion should be separated from the others, and sown aside for feeding purposes, only the upper and centre portions being retained for use as seed.”

CULTIVATION OF THE WHITE BEAN.

For years we have earnestly advocated the more extensive cultivation of the white bean as a field crop on American farms.

The great need of American agriculture is a good fallow crop—some plant that will stand our hot, dry summers, enrich the soil, and allow the use of the horse-hoe to clean the land during its growth. A plant, in short, that shall occupy the same place in our rotation as the turnip does in English agriculture.

The white bean comes nearer to this than any other plant yet introduced. If the beans are consumed on the farm,—as the turnips always are in England—their cultivation would add materially to its fertility. There can be no doubt on this point. All the leguminous plants—including clover, peas, vetches, beans, etc.—contain large quantities of nitrogen, and this when consumed by animals or plowed under, is converted into ammonia—the very thing which we most need for the growth of the cereals.

Let us, then, grow beans. No crop will pay better. When prices are good, as at present, they can be sold; and if prices fall, they can be fed out on the farm with advantage.

In regard to their cultivation, we have written much in previous volumes of the *Genesee Farmer*, that little need be added at this time. They are generally grown on warm, light soil, but will succeed on almost any soil if properly cultivated. For this, as for all other crops, the land should be well underdrained, either naturally or artificially. The land may be plowed in the fall and again in the spring, and made clean and mellow before planting; or a clover sod may be turned over and

the beans planted at once. The common “white medium” is generally considered the most productive variety, but the White Mountain or Marrow yields nearly or quite as well, and brings a better price. It is a little larger, rounder, plumper and handsomer, and is gaining in popular esteem.

They may be planted in hills two and a half feet apart and fifteen to eighteen inches apart in the rows, dropping five to six beans in each hill; or they may be drilled in with a machine, in rows two and a half feet apart, and a single bean two inches apart in the rows. The latter, perhaps, gives the larger crop, but the former requires less labor in hoeing, etc. In this section, they are usually planted the first week in June.

CROSS BETWEEN THE WILD AND DOMESTIC GOOSE.

A CORRESPONDENT of the *Prairie Farmer*, speaking of the hybrid between the wild and domestic goose, says they frequently “pair like other geese, and lay quite a number of eggs, yet their eggs will not hatch.” He has tried them repeatedly, but the eggs were always rotten at the expiration of four



AMERICAN WILD GOOSE.

weeks—the period of incubation for both the wild and common goose. He says the mongrels yield more and better feathers, and can be picked oftener in a year than common geese; that they are larger than either of the parent stocks; that they are stronger and hardier than the common geese, smaller eaters, and more easily reared. In winter “they sit on the snow and ice and keep up their wild yells night and day.” He gives the testimony of his wife, that the eggs of these mongrel geese “make better pan-cakes than any other eggs she has tried.”

The editor of the *Boston Cultivator* calls attention to this fact, and says he has heard before that these mongrel geese sometimes lay, but never heard of an instance of their eggs having hatched.

C. N. BEMENT, in an article written for the *Rural Annual and Horticultural Directory* for 1859, mentions the same fact. Speaking of the American wild goose, he says:

"This bird, by all foreign writers, is called the Canada goose. Most writers on poultry call it a variety of the common goose; but it is no more a variety of goose than the swan, which it greatly resembles. CUVIER seems to doubt whether it is a goose at all, and says it can not properly be separated from the true swans. We once possessed a wild gander that had been pinioned by a shot in the wing, which mated with a common domestic goose, and we bred from them for more than ten years; *but their produce was not fruitful*, although they laid eggs. The hybrids never showed any disposition to pair or mate with either the wild or domestic goose. They partake largely of the wild habits, and if their wings are not clipped spring and fall (and more particularly the in spring), they are very apt to fly away and not return.

We annex an excellent portrait of the wild American goose.

CULTIVATION OF FLAX.

AN unusual interest is felt at the present time, both in this country and Canada, in regard to the culture of flax.

That our soil and climate are well adapted to the growth of flax, there can be no doubt. Russia, with a climate in many respects similar to that of the United States, is the greatest flax producing country in the world. The only drawback we can perceive to its extensive culture is the high price of labor as compared with Russia and other great flax-growing countries. But, as the introduction of improved machinery has enabled our farmers to overcome this difficulty in the cultivation of other crops, we see no reason to doubt that such will be the case in the cultivation of flax and the preparation of the fibre for market.

Flax can be grown on a wide range of soils—from heavy clays down to those of a mucky character. Sandy loams in good condition and alluvial soils are best suited to its production. In Ireland, large crops are sometimes grown on peat-bog lands with a clay subsoil. A deep, open soil, either naturally or artificially underdrained, is very essential, as the fibrous roots ramify through the soil in all directions and not unfrequently to the depth of two or three feet.

Flax is supposed to be an exhausting crop. We do not think that this is especially the case. It likes a rich soil, however, and large crops can only be grown with good tilth and clean culture.

It is thought best to plow the land in the fall, and get it as clean and as fine as possible, and then

to sow the seed in the spring without plowing—merely cultivating the land. One advantage claimed for this practice, is that the flax can be sown earlier in the spring.

If grown for fibre, early sowing is more important than if grown merely for seed. In this country, especially in Ohio, a large amount of flax is sown merely for the seed. When this is the case, it need not be sown before May, and the preparation of the land is not of so much importance. For either fibre or seed, it should not be sown till the land is in good working condition. Some prefer



FLAX PLANT AND ROOT.

to turn over a clover sod immediately before sowing. In this way, the plants get the start of the weeds. In Belgium flax generally follows oats, and the land is seeded down with the flax. Sometimes carrots are sown with the flax.

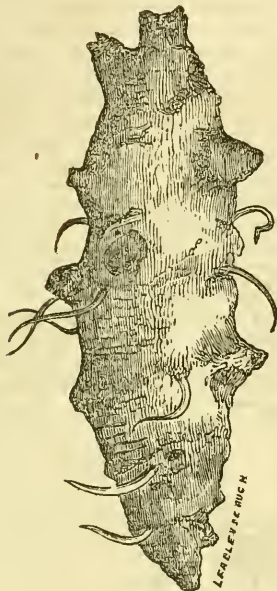
If grown for fibre, thick seeding is necessary. Two bushels of seed per acre is the usual quantity. In Europe it is generally drilled in, and the crop is afterward carefully weeded. In this country it is generally sown broadcast. It is essential to cover the seed at an even depth, as uniformity in the ripening of the crop is important.

When sown merely for the seed, much thinner seeding is required. From three pecks to a bushel per acre is ample.

THE JERUSALEM ARTICHOKE.

A FEW years ago the agricultural papers teemed with the most extravagant recommendations of this plant. It would grow anywhere and everywhere, required no cultivation, produced enormously, and added greatly to the fertility of the soil. ALLEN'S "American Farm Book" stated that it would yield *two thousand bushels* of tubers per acre, and from four to five tons of dry tops, equal to the best hay!

Many farmers were induced to plant it. It need hardly be said that the result was not equal to

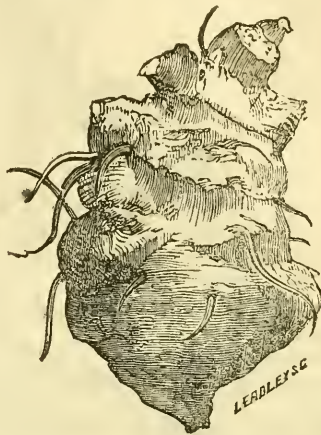


COMMON ARTICHOKE.—(FIG. 1.)

their anticipations. Those who had praised it so immoderately, were justly censured, and its cultivation was soon all but generally abandoned.

This result is much to be regretted. The plant has many qualities to recommend it. Like the parsnep, the tubers can remain in the soil all winter without injury. It will grow on poor sandy soil, and yield a large amount of produce. It draws most of its nourishment from the atmosphere, and its growth and consumption on the farm adds largely to its fertility. It is extensively grown on many of the poor sandy soils of Europe. BOUSSINGAULT, several years ago said, "Of all the plants that engage the husbandman, the Jerusalem artichoke is that which produces the most at the least expense of manure and of manual labor." The French agricultural writers of the present time speak of it as one of the best renovating plants that can be grown on a farm.

The cultivation of the Jerusalem artichoke the first year is very similar to that of the potato. When once in the soil, however, no further planting is required. There will always be tubers enough left in the soil for the next crop. It is impossible to get them out. This is one of the objections to the plant as an ordinary farm crop.



YELLOW ARTICHOKE.—(FIG. 2.)

The usual plan is to select a piece of ground—generally some spot that can not be profitably cultivated with anything else—and plant it with artichokes and let them occupy it for a number of years. The tubers should be planted in rows three feet apart, and twenty inches in the rows. The next season there will be enough tubers left in the ground for a crop. They may be thinned out by running a plow or cultivator through them. This is all the cultivation required.

In France, it is not uncommon to feed off the tops with sheep in the fall. In this country, this may be done, and the pigs afterward may be allowed to root up the tubers. We can not but think that there are many places on American farms where the Jerusalem artichoke may be raised to considerable advantage.

There are two varieties of the Jerusalem artichoke in cultivation. Fig. 1 is the more common kind. Fig. 2 is the Yellow variety, and is usually smaller and more irregular in shape. The latter is the best for garden culture, being of a more agreeable flavor when cooked for the table.

LICE ON CALVES.—Feed them well; keep their pens clean and well littered with fresh straw, and they will seldom be troubled with lice. A little sulphur in their milk is also good. If they are affected, Scotch snuff or a solution of tobacco will kill the lice.

SHEARING SHEEP.

AN Ohio correspondent asks for an article on this subject. We should much prefer to shear a

we have had engraved for the *Genesee Farmer*. He says:

Clipping consists of three stages, the first of which is represented in fig. 1. After setting the sheep on its rump, and on the supposition that the clipper is a right-handed man, he rests on his right knee, and leans the back of the sheep against his left leg *a*, bent. Taking the shears in his right hand, and holding up the sheep's mouth with his left, he first clips the short wool on the front of the neck, and then passes down the throat and breast between the fore legs to the belly. Then placing the fore legs *b* under his left arm *c*, he shears the belly across from side to side down to the groins. In passing down the belly and groin, where the skin is naturally loose, while the shears *d* are at work, the palm of the left hand *e* pulls the skin tight. The scrotum *f* is then bared, then the inside of the thighs *g g*, and lastly, the sides of the tail *h*. These are all the parts that are reached in this position. For the clipping of these parts small shears suffice; and as the wool there is short and of a detached character, it is best clipped by the points of the shears, as carefully held close like *d*.



(FIG. 1.)—THE FIRST STAGE OF CLIPPING A SHEEP.

dozen sheep than to attempt a description of the operation.

It is a matter of surprise to us that so few farmers know how to shear sheep. The operation is not a difficult one. Every farmer's son should learn as soon as he is old enough. When a boy, it was our delight to assist the shearers—to catch the sheep, turn them up, and shear the wool from the belly, etc. And by-and-by we could make further progress, and finally could go through the whole operation. The work can not be expected to be done perfectly at first, but no farmer should hesitate to let his son learn, even if he does not turn out the sheep at first as smoothly and handsomely as could be desired.

STEVENS, in his "Book of the Farm," gives a minute description of the operation accompanied with illustrations, which

Fig. 2 represents the *second* stage of clipping. Its position for the sheep is gained by first relieving its fore legs *b* from their position in figure 1, and gently turning the sheep



(FIG. 2.)—THE SECOND STAGE OF CLIPPING A SHEEP.

upon its far side, while he himself, resting on both knees, supports its far shoulder upon his lap. You

may always rely upon this fact—the more a sheep feels at ease, the more readily it will lie quiet to be clipped. Supporting its head with his left hand the clipper first removes the wool from behind the head, then around the entire back of the neck to the shoulder top. He then slips its head and neck *a* under his left arm *g*, and thus having his left hand at liberty, he keeps the skin tight with it, while he clips the wool with the right from where the clipping in the first position, fig. 1, was left off to the back bone, all the way down the near side. In fig. 2 the fleece appears to be removed about half way down the carcass; the left hand *b* lying flat, keeping the skin tight; while the right hand *e* holds the shears at the right part, and in the proper position. The clipper thus proceeds to the thigh and the rump and the tail *d*, which he entirely bares at this time.

Clearing the sheet of the loose parts of the fleece, the clipper, holding by the head, lays over the sheep on its clipped or near side, while still continuing on his knees; and he then rests his right knee, fig. 3, over its neck on the ground, and his right foot *b* on its toes, the ankle keeping the sheep's head down to the ground. This is the *third* position in clipping. The wool having been bared to the shoulder in the second position, the clipper has now nothing to do but to commence where it was then left off, and to clear the fleece from the far side from the back bone, where it was left off in fig. 2, in the second position, toward the belly, where the clipping was left off in the first position, fig. 1—the left hand *e* being still at liberty to keep the skin tight, while the right hand *f* uses the shears across the whole side of the tail. The fleece *g* is now quite freed from the sheep. In assisting the sheep to rise, care should be taken that its feet are free from entanglement with the fleece, otherwise, in its eagerness to escape from the unusual treatment it has just received, it will tear the fleece to pieces.*

On comparing the attitudes of the clipper and of the sheep, in the different stages of clipping just described, with those of a mode very common in the country, it is necessary to look again at the *first* stage of the process, fig. 1, the common practice of conducting which is to place the sheep upright on its tail, and the clipper to stand on his feet, supporting its back against his legs—which is both an insecure and painful position for the sheep,

and an irksome one for the man, who has to bow much down to clip the lower part of the animal. In the *second* stage, fig. 2, the man still remains on his feet, and the sheep upon its rump, while he secures its head between his legs, in order to tighten the skin of the near side, which is bent outward by his knees. The skin is certainly tightened, but at the expense of the personal ease of the animal;



(FIG. 3.)—THE THIRD AND LAST STAGE OF CLIPPING A SHEEP.

for the hand can tighten the skin as well, as shown in all the figures, at *b* and *e*; whilst the bowing down so low, and as long, until he clips the entire side, can not fail to pain the back of the clipper. The third position is nearly the same in both plans, with the difference in the common one, which keeps the left leg bent, resting on its foot—a much more irksome position than kneeling on both knees.

SKIMMED MILK CHEESE.—A skillful dairymaid can make very fair cheese from skimmed milk. But extra care and time are required. The cheese must be set very cool, or it will be sour and unpalatable—

“Too big to swallow, and too hard to bite.”

It was an article of this kind which elicited a rather pithy criticism from a half-witted fellow who got his living by running errands about Dunblane, in Scotland. On one occasion he was sent to a farm-house where the “creaming-dish” was very rigorously used, and on being set down to a repast composed of bread, butter and cheese, he was observed to spread the butter pretty thickly over slices of cheese, muttering all the while, quite loud enough to be heard by the bystanders, “Deil be in their fingers that ever pairted ye.”

* The artist has erroneously represented the sheep lying on its *far* side, and the clipping to proceed from the belly to the back bone, which is the proper posture for the second position, as also the keeping of the sheep's head down with the left leg *a*, whereas the sheep should have lain upon its *near* side, the wool been shorn from the back bone to the belly, and the head kept down with the right leg, as described above.

SPIRIT OF THE AGRICULTURAL PRESS.

HOG CHOLERA.—The *Illinois Farmer* says: "We have never heard of a farmer losing his hogs by this disease who kept them in good clover pasture during the summer."

BRAN AS A MANURE.—A correspondent of the *New England Farmer* used bran as a manure for potatoes. The result satisfied him that the advice of his better-half was correct, "that he had better give the bran to the cows and let them compost it before using it for manure." We agree with his "better half."

SQUASHES FOR MILCH COWS.—A correspondent of the *Valley Farmer* says summer squashes are excellent for feeding cows in summer. They are easily raised, very productive, and continue bearing till frost. They are nutritious, and cows eat them with avidity. He thinks the Yellow Bush Summer Crookneck the best variety.

DON'T BE AFRAID OF SEED.—The *Ohio Farmer* says: "As a rule, farmers in this country use too little seed; the ground must and will be occupied, and if the seed you desire to grow be not there, weeds, etc., will take its place. Some good farmers have learned this by experience. Put in plenty of seed, and that of the very best kind."

BAD SEED AND THE MANGEL WURZEL CROP.—The *Mark Lane Express* furnishes an interesting table of statistics in regard to the crops of last year in England. Out of 380 returns, 237 report the crop of mangel wurzel as poor. This is ascribed to the ungenial season of 1860, which prevented the seed from properly ripening. A large proportion of it rotted in the ground. The loss sustained by farmers—and the country—from poor seed is enormous.

THE POTATO DISEASE.—J. B. AUSTINE, of Warren, Mass., writes to the *Boston Cultivator*, that five years close observation and experience in regard to the potato disease, prove conclusively, to his mind, that the best remedy consists in separating the tops from the tubers as soon as the former show any evidence of disease or blight. This is done by carefully pulling the tops, the workman placing his feet around them so as to prevent the tubers from being drawn out.

EFFECTS OF VEGETABLES UPON DIFFERENT ANIMALS.—The *Scottish Farmer* says: "Horses seldom eat cruciferous plants (cabbages, turnips, etc.), but will feed on reed grasses, amidst abundance of which goats have been known to starve; and these latter again will eat and grow fat on the water hemlock, which is rank poison to other cattle. In like manner, pigs will feed on henbane, while they are destroyed by common pepper; and the horse which avoids the bland turnip will grow fat on rhubarb."

WATER-PROOF BOOT SOLES.—The *New York Tribune* says: "If hot tar is applied to boot soles, it will make them water-proof. Let it be as hot as the leather will bear without injury, applying it with a swab and drying it in by fire heat. The operation may be repeated two or three times during winter, if necessary. It makes the surface of the leather quite hard, so that it wears longer, as well as keeps out the water. Oil or grease softens the

sole and does not do much good in keeping the water out. It is a good plan to provide boots for winter during summer, and prepare the soles by tarring, as they will then become, before they are wanted to wear, almost as firm as horn, and will wear twice as long as those unprepared."

CORN COBS.—The *New York Observer* says truly, "cobs are not worth the crushing." The cost of grinding them with the grain is more than they are worth as food.

MELONS.—A correspondent of the *Valley Farmer* urges every reader of that paper to plant at least melons enough to save the boys from breaking the eighth commandment! A dozen hills will be sufficient for an ordinary family.

FENCE POSTS.—The *Ohio Farmer* says: "Many years ago, we were building a new fence, and when setting our posts, we saturated that part which we placed in the ground, and about one foot above, with coal tar, rosin and lime. The proportions were about eight parts of tar to one of lime; and sixteen of tar to one of rosin. We melted the rosin before mixing, but the lime we put in as we bought it from the kiln. Those posts are now nearly all of them sound and good, although the timber was a sorry mixture of basswood, beech, oak, chestnut and maple."

WHY DO WE PICKLE SEED WHEAT TO PREVENT SMUT?—A correspondent of the *Iowa Homestead* says:

Smut is said to be prevented by soaking the wheat in a solution of salt, or in a solution of nitre, or in a solution of blue vitrol, each of which is undoubtedly good. Why? Because, acting as fertilizers, they give vigor to the growth of the wheat—accelerating its growth, and thus enabling it to resist the early and pernicious influences of too much heat, or too much moisture.

This is not the reason. These substances do not accelerate the growth of the wheat. They do not act as fertilizers. In fact, wheat that is "pickled" with salt or chamber lye, and dried with lime—the most common mode of treating seed wheat to prevent smut—seldom starts so early or grows so vigorously at first as that which is not pickled.

The reason why these substances prevent smut is this: The spores of the smut, or, more properly, "bunt," adhere to the seed wheat, and, if not destroyed, propagate rapidly under favorable circumstances, and are in some way carried into the circulation of the plant and injure the crop. We pickle the wheat in order to destroy them.

GALLED SHOULDERS IN HORSES.—A correspondent of the *German town Telegraph* writes: "Some say that if a collar fits a horse as it should, he will never have sore shoulders. Now, I do not think that this is the case, for I have a pair of horses who could not be worked at plowing or harrowing for a week, without having sore shoulders, yet their collars fitted them well. It seemed that one hide had to be rubbed, and as that of the collar was the hardest, the consequence was that the horses' hide got the rubbing. The galls I could soon cure, but if the horses were worked I could not prevent them. Chancing one day to take hold of an English agricultural journal, the first thing which I noticed was an editorial proposing that a piece of leather should be laid on the horse's neck under and disconnected from the collar. I saw that the theory was good, and concluded that as one hide had to take a

rubbing, the collar and leather might settle it between them as best they could. So having procured paper and scissors, I cut out a pattern for my havelock. I cut the pattern so that it could be sewed together on top of the neck and in front of the breast, and at the same time fit the neck neatly without creasing. They were made considerably wider than the collar, say from ten inches to one foot. I then applied my patterns to a piece of leather, and cut out their counterparts, and sewed them together, and after soaking them over night I applied them to the horses' necks, taking care to keep them smooth and nice. Since then my horses have never had sore shoulders; and any one seeing the havelocks after three months use would not wonder that the horses' shoulders were sore, or rather would wonder that all horses' shoulders were not sore.

"I have cured the shoulders of horses with the following compound: Good brandy, 1 quart; $\frac{1}{2}$ lb. alum well powdered. The brandy and alum should be placed in a bottle, and when used should be well shaken. The mixture should be rubbed on with a sponge, and a pad (an old stocking leg stuffed with straw) should be placed below the gall, and I will insure a cure if the collar is as soft as it should be. I have cured shoulders with this mixture, even when the skin was broken, without taking the horse from his work. But use the havelocks, and you won't want the mixture."

MANAGEMENT OF HONEY BEES.

I now propose to make a few remarks on the Langstroth Movable Comb Hive, in regard to which a good deal has been published in the agricultural papers. I do this, (as I write all other matter here, for the benefit of the readers of the *Genesee Farmer*. If others think differently from what I shall say, it is only what takes place on all subjects. There is not, probably, a single article that appears in this paper in a year, which does not evince a disagreement in opinion with many of its readers.

In the Langstroth hive, each comb is attached to a separate moveable frame, which may be removed at the pleasure of the apiarian. It is alleged that the advantages of such combs are: that weak stocks may be quickly strengthened by supplying them with maturing broods from stronger ones; queenless colonies provided with the means of obtaining another queen, and the ravages of the moth prevented by the removal of combs, and the moth worms destroyed. It is also said that new colonies may be formed with this hive in a very expeditious manner, and the surplus honey taken from the combs. I quote Mr. LANGSTROTH's own words. He says: "Colonies may be safely transferred from any other hive to this, at any season of the year from April to October, as the brood combs, honey and all the contents of the hive are transferred with them, and securely fastened to the frames."

Here we have about all the alleged benefits that are claimed for this hive.

In the first place, the hive costs considerable more than most other hives. It was said, when they first came out, that they could be constructed for about \$4, and Mr. LANGSTROTH has since stated that the price has been reduced in some measure. The price, however, would not

be objected to, if such hives were really necessary in order to obtain the greatest degree of success in bee culture.

But a serious difficulty in the way of the successful working of this hive, exists in the frames becoming glued fast to the sides of the hives by the bees; it being natural for them to close up every crack and crevice with propolis. When this occurs, and it is frequent, all the alleged advantages are unavailable. Even if these obstructions did not occur, it is very doubtful, in my mind, whether the extra time spent in performing operations, with the extra cost of hives, will "pay" in the end.

If I had a weak colony of bees, I would sooner strengthen it by *transposition* with a stronger family, than by the movable comb system.

In regard to *queenless* colonies: when discovered, which is known by the inactivity of the bees, very few of such families are sufficiently populous to recover on being supplied with brood comb, from which another queen may be reared. In most cases, the first intimation we have of a family having lost its queen, is the *desertion of the hive*; the bees having made a forced entrance into the adjoining hives. This occurs generally in the spring of the year, on the first, few mild, sunny days that take place—more queens being lost in winter than in any other season. I, therefore, consider the facilities offered in the Langstroth hive for supplying larvæ to queenless hives, as worth but very little in a practical point of view.

The alleged benefits in affording an opportunity to destroy the bee moths in the combs, I consider wholly worthless, because no strong family of bees was ever known to become badly infested with moths, and when a weak one was in such a condition that it is necessary to remove the combs and cut out the worms, it is scarcely in a savable condition—the moths having got the upper hand, and the bees so reduced in numbers as to be of little value.

Mr. LANGSTROTH, I believe, lays considerable stress on the alleged advantages of his hive to form new colonies—to make artificial swarms.

A very attractive *theory* can be written out on this basis, but when we come to *practice* on it, we find a very different matter. I have tried artificial swarming, by attaching brood comb in a hive, and then forcing bees to occupy it, which is Mr. LANGSTROTH's system, without his hive, and I have become convinced that *natural* swarming is the most advantageous. The chief disadvantages of this plan are: the bees do not work with the same activity as when swarmed naturally, and considerable time is lost in rearing a queen. This artificial swarm theory is an old one—one that was exploded long before Mr. LANGSTROTH invented his hive. In some cases, where the season is favorable, artificial swarms made *early* will do well; but, as a general rule, it is not destined to be followed by the bee keepers of the United States.

In my remarks I refer more particularly to the interests of those who are compelled to count the cost in all they do. Any person who has leisure, time and money to spare, may very properly use the Langstroth hive, if for nothing more than as a matter of amusement. But for farmers, who can not spare time to "fuss" with movable bars, and supply brood to a queenless family, I think I am correct when I say *it will not pay*. T. B. MINER.

Clinton, N. Y.

HOW TO PRESERVE EGGS.

As the season approaches when hens are most prolific of eggs, and eggs are plenty and low in price, is the best time to preserve them for future use—when they are scarce and dear. We offer the following receipts for the benefit of the readers of the *Genesee Farmer*; several of which we have repeatedly tried with perfect success, and found the eggs, after one year's packing, perfectly sound and fit for eating and all culinary purposes.

Nothing was known scientifically on the subject of preserving eggs till M. REAUMUR was led to take it up. Eggs, after being laid, it was shown, lost daily by transpiration a portion of the matter which they contain, notwithstanding the compact texture of their shell and of the close tissue of the flexible membrane lining the shell and enveloping the white. When an egg is fresh, it is proverbially full, without any vacancy; and this is a matter of common observation, whether it be broken raw, or when it is either soft or hard boiled. But in all stale eggs, on the contrary, there is always more or less vacancy, in proportion to the loss they have sustained by transpiration; and hence, in order to judge of the freshness of an egg, it is usual to hold it up to the light, when the translucency of the shell makes it appear whether or not there be any vacancy in the upper portion, as well as whether the yolk and white are mingled and turbid by the rotting and bursting of their enveloping membranes.

The transpiration of eggs, besides, is proportioned to the temperature in which they may be placed—cold retarding and heat promoting the process. Hence, by keeping a fresh laid egg in a cool, dry cellar, of even temperature, they will transpire less and be preserved for a longer period sound, than if they are kept in a warm place or exposed to the sun's light, which has also a great effect in promoting the exhalation of moisture. As, therefore, fermentation and putridity can only take place by communication with the air at a moderate temperature, some means must be devised to exclude such connection by closing the pores of the shell.

The first material which M. REAUMUR tried was alcohol varnish, made with shellac, and he says that "it was impossible to distinguish the varnished eggs, which had been kept for a year, from those newly laid."

It is an indispensable condition of the material used for stopping the pores of the shell of the egg, that it should not be capable of being dissolved by the moisture transpired from the interior, and the varnish fulfilled this condition. But unfortunately, though varnish is not very expensive, it is not a common article in country places where eggs are most abundantly produced, while many people, besides, are not easily brought to make use of anything to which they have not been accustomed.

In order to get over this difficulty, M. REAUMUR was led to try other substances, and soon found another material, very cheap and everywhere to be had, which would very well supply the place of varnish. The material was fat or grease, such as suet or lard. But the best of these was proved to be a mixture of mutton and beef suet, melted together over a slow fire, and strained through a linen

cloth into an earthenware pan. When thoroughly melted, an egg was dipped into it, and immediately taken out again, when it was in a fit state to be kept for months or more. Five lbs. of this fat melted might prepare all the eggs produced in the neighborhood in one season.

"The chief advantage in the use of this fat, rather than varnish, is that the eggs rubbed over will boil as quickly as if nothing had been done to them—the fat melting off as soon as they touch the hot water; whereas the varnish, not being soluble even in hot water, only becomes moistened by it, and still hanging about the egg, prevents the transpiration of the juices necessary to bring the egg into that state in which it is to be eaten. When the egg, on the other hand, which has been preserved by the fat, is taken out of the water there remains but little fat upon it, and what there is can easily be wiped off upon a napkin."

The method of preserving eggs by means of fat is greatly preferable to that of varnish, when they are intended for putting under a hen to be hatched, for the fat easily melts away by the heat of the body of the hen, while the varnish remains and impedes the hatching. It is safer, however, to immerse the eggs in hot water not exceeding 100°, and then wipe them carefully with flannel or soft woolen cloth. By this means, and carefully packed in dry sawdust, oats, or almost any other dry, soft substance, if fresh laid, eggs may be carried to a distance and hatched.

In the meanwhile air should be excluded from the eggs as much as possible. It is best to set them on end, and not to suffer them to lie and roll on their sides. Dry sand or hard-wood sawdust is the best for packing. When choice eggs are expected, it is more prudent to have a hen waiting for them, than to let them wait for her. A good sitter may be amused with a few addled or glass eggs, and so be ready to take charge of those of value immediately on their arrival.

There is another method of preserving eggs a long while fresh, depending on very different principles from the preceding, but well worth notice. We are indebted for the discovery, if indeed it can be termed one, to the same ingenious French experimenter, M. REAUMUR. Having remarked that there was a very great difference among eggs as to the rapidity with which they become unfit for use and putrid, he investigated the cause of this difference, and found that it was the eggs which had not been fecundated or made reproductive by the cock that continue long uncorrupted. In order, therefore, to have eggs to keep fresh from spring to the middle or even the end of winter, it is only necessary to remove the cocks and to deprive the hens of all communication with them for at least a month before the eggs are put away. Without knowing this, people often find among the eggs they buy some which soon spoil and others that will keep for a long time.

Some hens produce eggs with much thicker shells than others. These of course will keep longer than those with thin shells. The eggs from Guinea hens are the hardest, and will keep longer and bear transportation better than any others.

Eggs may be kept any length of time, if the air is perfectly excluded, turned often, and the place of deposit kept at a low temperature. We have

tried many experiments to preserve eggs, and have been most successful with lime water. We place the eggs carefully in stone jars in layers, with the small end downward, and then turn on them strong lime water, in which we dissolve two handfuls of salt to four gallons of water. If, after standing a few days, a scum or crust should form on the top, we add more water and salt to dilute it, for if too strong it will injure and sometimes spoil the eggs. The jar should be kept in a cool and dry situation. In this way we have kept them good for more than a year. The lime and salt closes the pores of the shell, and the liquid secures them from atmospheric influences.

We have also preserved eggs by packing them as above in fine salt. They kept very well, but we found the salt, after a few months, packed so tight around the eggs that it was difficult to remove them without breaking the shells.

Eggs for preservation should be removed from the nest daily, and then laid down as fresh as possible. One bad egg may spoil or contaminate dozens or a jar full.

Another excellent method, as we are informed, for preserving eggs, is to mix a bushel of quick lime, two lbs. of salt and half a lb. of cream tartar together, adding a sufficient quantity of water, so that an egg may be plunged in to the point. When a paste has been made of this consistence, the eggs are put into it, and may be kept fresh, it is said, for two years.

"It ought not to be overlooked," says Dixon, "with respect to the preservation of eggs, that they not only spoil by transpiration of their moisture and the putrid fermentation of their contents, in consequence of air penetrating through the pores of the shell, but also by being moved about and jostled when carried by sea or land. Any sort of rough motion, indeed, ruptures the membranes which keep the white, the yolk, and the germ of the chick in their appropriate places, and, upon these becoming mixed, putrefaction is promoted.

"The dealers are reported to have recently discovered that immersing eggs in sulphuric acid is a very effectual means of preservation, and it is very probable it is so, for the sulphuric acid will act chemically upon the carbonate of lime in the shell, by setting free the carbonic acid gas, while it unites with the lime and forms sulphate of lime, or plaster of Paris. The pores of the shell will in this way be closed up with plaster of Paris, and in a more minute and effectual way, too, than could be done by its direct application."

Another method to preserve eggs in a fresh state, is to dip them in a solution of gum Arabic, and then pack them in powdered charcoal. The gum Arabic answers the purpose of a varnish for the eggs much better than any resinous gum, as it can be easily removed by washing either in warm or cold water, besides it is much cheaper. Eggs preserved in this manner will keep any length of time, as the bed of charcoal, from its porous nature, is a non-conductor of heat, and consequently maintains around the eggs a uniform temperature—preventing them from suffering from alternations of heat and cold, when they are removed from one climate to another. This method is said to be infinitely better than greasing them, for when the grease be-

comes rancid it hastens or promotes putrefaction of the animal matter in the egg.

The gum Arabic may be applied as follows:—Take equal quantities of gum Arabic and water; when the gum is dissolved, coat the egg with a soft brush. When this coating is dry, add another coat, and the eggs will keep fresh till wanted.

A German chemist has discovered an easy mode of preserving for six years, or probably for a longer period, eggs perfectly fresh and fit to eat. All that is necessary is to put fresh-laid eggs into a bottle with a large mouth and short neck, and fill it with lime-water.

The way to make lime-water is as follows:—Throw into a vessel containing ten or fifteen quarts of water, five or six lbs. of unslaked lime, shake it well several times, then let the lime settle and pour off the water, which is perfectly limpid, although it has dissolved a portion of the lime. To make sure of its being saturated with the lime, after having filled the bottle containing the eggs until the water is about three inches above them, add a small quantity of quick-lime and close the bottle.

PICKLED EGGS.—At the season of the year when eggs are plentiful, boil some five or six dozen in a capacious saucepan until they become quite hard. Then, after carefully removing the shells, lay them in large-mouth jars and pour over them scalding vinegar, well seasoned with whole peppers, allspice, a few cloves of garlic, and a few races of ginger. When cold bung them up closely, and in a month they are fit for use. When eggs are plentiful, the above pickles are by no means expensive.

66 East 99th street, New York.

C. N. BEMENT.

BUTTER MAKING IN IRELAND.

The Irish Farmers' Gazette, one of the very best of our foreign exchanges, contains an interesting article on the management of the dairy. We extract some remarks on butter making, which will be read with interest:

Supposing the cows to be all milked—and this must be thoroughly done, for the last milk which can be drawn from the udder is the richest—then the milk is poured through a milk sieve into the dishes, so as not to be more than two inches in depth; at the same time, four to six inches is more common. Cream will not rise when there is a considerable depth of milk placed in the dish, and some people do not allow it to exceed one inch. It also rises sooner in warm weather than in cold, and for this reason it must be skimmed sooner when the weather is warmer than usual. In ordinary cases, the cream should be skimmed about 20 to 24 hours after the milk has been put into the dish; in warm weather taking it off somewhat sooner, and allowing it to remain a little longer in cold weather. As the cream is skimmed, it is put into an earthenware jar, the top of which is covered with a piece of muslin, in order to prevent flies or dust getting into the cream, whilst it admits air. As additions of cream are made to that in the jar, the whole should be thoroughly stirred and intermixed together, and the contents should not be allowed to remain longer than three or four days without being churned.

When the whole milk is churned, it is strained,

as milked, into milk dishes or coolers; but a greater quantity is put into each dish than is done when the cream is to be taken off. In the north of Ireland, where churning the whole milk is a prevalent practice, the milk is strained into a jar or "crock," successive milkings being added until the jar is full, but avoiding putting in new milk just before churning; that is, suppose churning takes place in the course of the forenoon, the morning's milk is not added to the contents of the crock which are to be churned, but put into a fresh crock, and becomes the beginning of another gathering. This system, however is not so good as keeping each milking by itself so that the warm and cold milk is not mixed together. The frequency of the churning will partly depend on the weather, but the whole milk ought not to be allowed to remain longer than three days in ordinary cases, or, perhaps, four, without being churned; and, in warm weather, it may be churned in two days from the time the first of it was taken from the cows.

In large and even moderate-sized dairies the churns are driven by power, which is preferable to manual labor. Hot water is often added to milk or cream, to bring it up to the proper temperature for churning—say 52° or 53°; but this is not a good practice, and where an increase in the temperature is necessary, it is better to acquire it by putting the churn containing the milk or cream into a tub filled with a sufficient quantity of water to bring the contents to a proper state. During the process of churning, the temperature will rise to 56° or 58°; but it is requisite that attention be paid, so that it may not rise much higher than that point, otherwise the butter will be injured. When whole milk is churned, it will stand, however, a higher temperature than cream. Rapid churning is not desirable, and over churning is equally bad; but the best medium will be found when it takes an hour and a quarter of steady churning, in ordinary weather, to produce butter.

There is a difference of opinion as to the best mode of handling butter after it is taken from the churn. Some put it into a small, flat tub, and wash the buttermilk out of it by kneading it among clear, cold spring water, the milky water being occasionally poured off, and fresh supplies added, until it ceases to become tinged with milk; others knead it and beat it in a clean cloth, which absorbs the butter milk, and is frequently wrung dry, until the buttermilk is entirely taken away; whilst a third set of butter makers say that it ought to be worked by means of a wooden skimming dish, and that to work it in any degree by the hand is to spoil it, from the heat and perspiration, which is said to render the butter waxy. Mr. BALLANTINE's method, as detailed in the prize report in the "Transactions of the Highland Society," was to extract the milk by working it with the cool hand, but the butter itself was not washed or worked in water. Mr. DILLON CROKER, who paid great attention to the management of butter, recommended that, after finishing the churning, the milk should be drawn off by a plug from the bottom of the churn, and replaced by a quantity of pure spring water. A few turns of the wheel is then given, and the water run off; this is to be repeated until the water appears as clean as when it is put into the churn, showing that the milk has been all ex-

tracted. A strong pickle, well strained, is now put on the butter, and several turns of the paddles given, so that every part will feel the effect, which finishes the operation. If the weather should prove warm, it will be advisable, he considered, to let the butter lie in the churn for a few hours, which will render it firmer than it was when the washing was finished.

The salting process should commence directly after the buttermilk has been all extracted from the butter, and the quantity of salt must be regulated by the purpose for which the butter is intended. When it is to be sold merely powdered, a quarter of an ounce of salt will be sufficient for a pound of butter. For ordinary keeping purposes, or the London market, it may be cured with half an ounce of salt to the pound of butter, and many add quarter of an ounce of yellow sugar, and one-eighth of an ounce of powdered nitre. For export to the colonies, or long keeping, more salt is necessary, and as much as one ounce of salt, with a proportionate quantity of sugar, and the foregoing quantity of nitre, will be required. Nitre and sugar are both omitted by many, but these ingredients assist in flavoring and preserving the butter.

The salt used must be of the purest description, free from the salts of lime and magnesia which exist in ordinary sea salt. Prof. JOHNSTON recommended the purification of common salt for dairy purposes "by pouring two quarts of boiling water upon one stone or two of salt; stirring the whole well about, now and then for a couple of hours, and afterward straining it through a clean cloth. The water which runs through is a saturated solution of salt, and contains all the impurities, but may be used for common culinary purposes, or may be mixed with the food of cattle. The salt which remains in the cloth is free from the soluble salts of lime and magnesia, and may be hung up in a cloth till it is dry enough to be used for mixing with the butter, or with cheese."

The salt must be rendered as fine as possible, which may be done by crushing it with a rolling-pin, and the nitre and sugar well mixed with the salt, when these ingredients are used along with it. In salting, the butter is spread out thin in the tub, and the salt, etc., carefully sprinkled over it, and worked in with "the heel of the hand," until the whole is uniformly and thoroughly intermixed. Some only work in half the salt at first, and then lay the butter aside until next day, when the remainder is added, after pouring off any brine which has come from the butter. A great deal of Irish butter is spoiled by over-salting.

When the salting process is completed, the butter is packed into "crops"—earthenware jars—or into small casks. The former answers well enough when the butter is intended for home use, but when it is to be sent by rail or steamboat, it should be packed in firkins. These are made of ash or oak, and previous to being filled with butter, they must be first filled with boiling water, which will be allowed to remain in them for 20 or 24 hours; they are then well rinsed in clean, cold water, and filled with a strong hot pickle, which may remain in them till they are required for use. The firkins are weighed before the butter is put in, and half a pound being allowed for any additional soage

that may take place, the weight of the firkin is randed upon it. A little fine salt is then sprinkled in the bottom, and the butter packed tightly with a wooden rammer, or with the knuckles, and the greatest attention must be paid to this operation, so that there shall not be any vacant point of air, as the air contained in that vacant place, no matter how small, would soon spoil the butter.

If the firkin or jar is not filled at one churning, the butter must be covered with pickle, or some salt water, and sprinkled over it, and a clean cloth pressed close upon it, to keep out the air, until the next churning is ready, when the pickle is poured off, and the salt carefully removed with a spoon, and the smooth surface roughened or raised into furrows, for the purpose of allowing the last packed butter to become perfectly united with the first, without any appearance of seam, which would be the case were this precaution neglected. When the firkin or jar is filled, a little salt is strewed on the surface, and a piece of linen, dipped in strong salt and water, is spread equally over the top, when the cask may be headed, and is then ready for market, to which it should be sent with as little delay as possible.

Butter which has been improperly packed, or otherwise affected by the air, becomes rancid; but it may be cured by beating it in water into which from twelve to fifteen drops of chloride of lime to one pound of butter have been added. After working it well, leave it lying in the water for two hours, and then wash it in pure cold water, when it will be found to have become sweetened.

CULTIVATION OF CARROTS.

EDS. GEN. FARMER:—Noticing in both the March and April numbers of your paper, a communication in reference to the cultivation of carrots and other root crops, and disagreeing with both your correspondents in some respects, I should like to give them the benefit of my limited experience through your valuable paper.

Of the value of the carrot, in comparison with other roots, enough has already been said—and you will hardly find any two persons who exactly agree in this respect, and as to the proper quantity to be fed. Carrots are undoubtedly the best of all roots for horses, but for horned cattle and hogs I greatly prefer the mangel wurzel beet. As far as my experience goes, cows will give more milk and better quality, and both fat and working cattle will thrive better on mangels than on either carrots or turnips.

The best soil for carrots is a light, rich loam, but they will grow on any soil if properly prepared. I have raised them upward of thirty inches long on a dry, damp ground, when deeply subsoiled.

The yield of the carrot crop depends entirely on the preparation and tillage. The ground should be well manured—not less than twenty ox-cart loads per acre, and thirty or forty would be better. I have used raw manure with as good results as when well rotted. Plow thoroughly, incorporating the manure with the soil, and follow the first plow with a good, stirring subsoil plow. *Do not be afraid of setting too deep.* Harrow level and roll *lightly* before planting. For this purpose, I use a combined harrow and roller,—a one-horse machine—with

which in three hours I can prepare half an acre, of rough plowed ground for the seed drill, thereby saving all the expense of harrowing and raking the ground as it is usually done.

As to the time for planting carrots, I do not agree with "O. R." in the March number of the *Farmer*. He recommends sowing as early as possible. I have invariably found the crop better when sown between the first and fifteenth of May, than when sown before that time. When sown in April, the early rains promote too great growth of tops, and during the latter part of summer seed stalks are thrown out, which prevent the roots from attaining any size.

In sowing, I use a seed drill of my own invention, which sows and covers two rows at once. I can sow two acres per day. I put my rows sixteen inches apart, and thin to about four inches in the row.

I have found it a good plan to mix radish seed with the carrot seed (the Yellow Summer turnip is a good variety); about one ounce of radish to one lb. of carrot seed is sufficient. The radishes come up in a few days, and enable me to trace the rows distinctly during the first hoeing. As fast as they are large enough, they are pulled up for market or home use, and therefore do not interfere at all with the growth of the carrots.

After seeing and trying different implements for the cultivation of carrots and other root crops, and being satisfied with none, I got up a *hand cultivator*, which works admirably. It cuts close to the row, and is adapted to any depth not exceeding two inches, and any width not exceeding two feet; leaving the ground level, with the weeds on the surface. One man can tend from one to two acres per day with it.

The crop should be hoed as soon as the rows can be distinguished; and as soon as the weeds show themselves in the rows, set the boys at work. It is good policy not to wait for the weeds to show, but to run a cultivator through the rows every two weeks, until the tops shade the ground, after which they will need but little more care before harvesting.

Dig the crop while the ground is dry, and store in a dry, cool cellar, but where they will not freeze.

It seems to be a very prevalent idea that carrots should be planted with the rows wide apart, and thinned out to eight or ten inches in the row. It is a mistaken one. Just as large carrots can be raised with the rows sixteen inches apart, and thinned out to four or five inches, as by the former method, and I think that if "P. Q.," in the April number of the *Farmer*, will try my plan, he too will become an "eager advocate," and not pronounce 1200 bushels of carrots per acre a "humbug."

A. M. H

Rye, N. Y., April 1, 1862.

SOWING CARROTS.—Carrots should be sown as early as you plant corn, and before, if the season is warm and forward. From 15 to 18 inches apart the drills should be, and seed of last season's growth used, as carrot seed that is old will not vegetate. Do not let the weeds at the first hoeing get so large as to cover the carrots; if they do you will have a hard job on your hands to cultivate them properly.—T. B. M.

CULTIVATION OF POTATOES IN IRELAND.

At a meeting of the Westmeath Farmers' Club, a series of questions were submitted to the Club in regard to the culture of potatoes. One of the members, C. LEVINGE, had succeeded in producing seventeen tons of potatoes to the Irish acre (1½ acres) last year. The following is a condensed report of the replies to the questions:

Q. 1.—"Autumn culture and the time for plowing." R.—A good deep furrow should be given to the land early in the autumn, say in November at latest.

Q. 2.—"Whether drills or ridges are preferable." R.—In dry seasons drills answer well, and probably in such seasons produce most, but on an average of seasons ridges preferred. This latter point affirmed, on a vote, by a large majority, and that the ridge potatoes are far best for eating.

Q. 3.—"Proper width for ridges." R.—From 2 feet 6 inches to 3 feet, with 18 inch furrows. [Mr. C. LEVINGE recommends the narrower width.]

Q. 4.—"Degree of fineness of soil." R.—The better the land is tilled and prepared, the better for the crop.

Q. 5.—"Quality and quantity of manure." R.—There should be a *liberal* dressing of barn-yard manure, through which a mixture of bog mould is desirable, where practicable. Ashes alone cause the crop to yield well; also pure bog mould alone on stubble, where the soil under is good, and on a limestone substratum. Mr. C. LEVINGE had used guano, but the potatoes were large and hollow. On high red bog, however, guano had been used with success for this crop.

Q. 6.—"Mode of applying manure." R.—Plant on the manure. [It was agreed to try a piece of ground with the manure laid on *over* the sets, and another with the potatoes stuck, and the manure put on before the potatoes appear over ground, as in Connaught.]

Q. 7.—"Kind of seed." R.—Choose a *large, hardy* variety.

Q. 8.—"Preparation of seed." R.—Should be cut *clean*, and not broken. Mr. RICHARD CODY recommends cutting with a thin sharp knife, and says the effects of a nick of the spade in digging shows the necessity for this, as where the spade cuts, the tuber rots around. The seed should be allowed to skin over, after being cut, before being planted. Mr. C. LEVINGE says there will be more marketable potatoes from large potatoes with single eyes, and one cut in each potato, than any other way.

Q. 9.—"Period for planting." R.—As soon as the bud begins to show on the potatoes, probably end of February or beginning of March, for the general crop; but each variety should be planted without delay as the bud appears. Nature points this out.

Q. 10.—"Second moulding or earthing up." R.—*Before* the plant comes over the ground; if done after, the growth is checked, and the progress of the plant retarded, to the great disadvantage of their after-growth. If they should be up before second culture, it is better to earth them up merely, as in the case of drills, not to cover them.

Q. 11.—"Time for raising the crop." R.—Before the bottom of the stalks is quite dry and powdery; that is, while there is yet some green in the lowermost parts of the stalk.

Q. 12.—"Best mode of storing." R.—In pits, made on a level with or over the surface of the ground, and then clamped up and kept dry overhead with straw or other material.

CULTIVATION OF THE SWEET POTATO.

EDS. GENESEE FARMER:—In your March number, "Young Farmer," of Kittanning, Pa., makes an inquiry about sweet potatoes. Perhaps I can help him with my experience, as I have been quite successful in that line. And, as there is a probability of there being a scarce supply this season, these remarks may be of use to others also.

THE SEED.—In the culture of ordinary potatoes, the tuber is planted; with sweet potatoes, the *sprouts* are planted or set out. I prefer to raise my own sprouts, as I am then certain of the variety. I procure medium size, smooth potatoes, well filled with eyes, allowing at the rate of four bushels per acre. These will probably cost \$2.50 to \$3 per bushel. Be sure the potatoes have no black or soft spots, and above all do not let them get bruised, for if you do, they will rot instead of sprouting.

SEED BED.—Between the 1st and 15th of April, take a hot-bed frame and put in it stable manure to the depth of a foot, tramping it down hard. Cover this about one inch deep with sand, level it and lay the potatoes on it about two inches apart. Cover them with sand one and a half to two inches deep, water moderately and put on the glass. Do not water again until the sprouts show themselves, and then very moderately, unless the bed become very dry and parched. The moisture from the heating manure is usually enough to sprout them. Allow just air enough to carry off the surplus moisture.

[As this communication will appear too late for the seed-bed to be available, I will state that sprouts can be obtained from reliable growers at 25 to 50 cents per 100. Allow at the rate of 6,000 sprouts per acre.]

PLANTING AND CULTURE.—The sweet potato requires a warm, sandy soil. With me they have succeeded best on a soil rather gravelly. About the middle of May or the first of June, manure your plot moderately, and plow or spade it in about six or eight inches deep. Then plow furrows about three and a half to four feet apart, and the same depth as previously worked. It is better to run these furrows north and south, for then both sides of the ridges get the benefit of the sun. Fill this furrow about one-half full of well-rotted horse manure. Then turn the furrow back from each side, covering the manure, and making the ridge about six inches high and from fifteen to eighteen inches broad on top. On this ridge, set out the sprouts about eighteen inches apart. If the ground is very dry, and there is no prospect of rain, give them a little water at the time of setting out, which should be just at evening.

It is not necessary to take up the potatoes to obtain the sprouts, but merely rub them off with the finger as soon as large enough to set out; leaving the tuber to throw out a second crop.

Cultivate them the same as ordinary potatoes in drills; being particular to lift up the vines and lay them along the sides of the ridge every other week. If this is neglected, the vines will take root from the joints and draw off the sustenance from the tubers.

During the latter part of August, the hills may be opened carefully and the largest taken out for use. Fill the hole up and the smaller ones will soon be ready for the same operation.

For winter keeping, they should be dug on a warm, dry day in the first of October. Dry them two or three hours in the sun, and pack them in barrels or boxes in dry sand, chopped straw, or, what is still better, oat chaff. Store them in a warm, dry place. A. M. H.

Rye, N. Y., April 2, 1862.

HIRED HELP ON A FARM.

In these times, when the farmer has to pay a good share of his profits to the Government in the shape of taxes, it will not do to be over easy with our hired help. When I hear it said of a farmer, "he is a nice man to work for," I conclude that he is rather too easy with his men in some respects. For instance, hands who have no interest in the result of their labors, beyond receiving their wages, can and often do fritter away a great deal of valuable time in useless conversation. One begins a "yarn," and the rest have to stop and listen, then work a little and stop to get the "hang" of the story; and the day passes, and about three-quarters of a fair day's work is done by each man.

Now, if the farmer who employs these men allows such a waste of time, he is called "a nice man to work for," but he pays very dear for the empty honor of such a name. A little sternness and determination on the part of the employer is not amiss. When you hire a man, let him understand at first that his labor and time belong to you. You can tell him very properly, in plain English, that if he is accustomed to keeping his tongue on the wag when at work, you don't want him; that if he works for you, in a gang of men, he has got to keep a close mouth, or his name is "walker."

Nor should a farmer be absent from his hired hands a minute more than is absolutely necessary. Some farmer has observed that "his old hat stuck up in the field was worth a dollar a day to him, in causing his hands to keep steadily at work."

"Gentlemen farmers," who have retired from cities to the country, are subject to a severe tax in not being present with their hired men, and they often sigh over the results, "Al! I have grown cost me fifty per cent more than to buy my provisions in the market."

T. B. MINER.

Clinton, N. Y.

HOW TO GROW MELONS, CUCUMBERS, SQUASHES, ETC.—As soon as the seeds begin to crack the ground in upward vegetation, lay over each hill a half a newspaper or other sheet, a little raised in the centre, and place a hoeful of dust at each corner, so that the winds can not blow the papers away. Keep them on till the third leaf grows, and no bugs will trouble the vines, and they will grow as fast as in a hot-bed.—T. B. M.

AN INQUIRY—SAWDUST AS MANURE.

EDS. GENESEE FARMER:—I have often seen sawdust recommended in agricultural papers and books, but have never seen any article in which there was any distinction made between the dust from different kinds of wood. Now, I am well convinced that decayed wood is a very valuable manure, but I can easily perceive that the soil around a decayed oak stump is at first more fertile than that around a pine stump. Is it on account of the difference in timber, or because one decays faster than the other?

We have here a very large tract of sandy plains, with a rich, deep soil for the kind, originally covered with oak and pine, with a large predominance of the latter, but now covered with logs and stumps, the debris of lumbering establishments, and oak grubs. Our soil lacks in organic matter, on account of the fires that have run over it, and consequently it lacks in the capability of retaining moisture. We have around our lake (Muskegon, six miles long and two broad), fifteen steam saw-mills, cutting in the aggregate some 50,000,000 feet of pine lumber per annum. The sawdust (except the small quantity used to support the steam) is carried off in carts, and either burned or used in filling up docks, wharves, gullies and sloughs, or in paving the roads; but at the rate it accumulates, these places will all soon be filled up, and it is a question of real importance whether this article can be used to any benefit on our land.

Pine is a good timber to last where it is kept from the ground, but when used for stakes or posts it rots off at the surface of the ground very quick, especially in a sandy soil. The power of the dust to retain moisture seems very great, for where it lies in any depth it is always moist an inch or two below the surface, and where it is kept constantly moist it does not seem to decay. The inference that I draw from these facts is, that if spread upon our soil to the depth of one or two inches, and worked into the surface soil, it will assist in retaining moisture even when green, and that it will there decay very fast, and that when so decayed it will enrich the soil. Am I correct? I ask you, Messrs. Editors, or any of your readers or correspondents who have had any knowledge of the matter, either by theory or experience.

Of one thing I am sure, from my own observation—that in the absence of straw, as with us, it makes a good litter for horses and cattle, and that when mixed with the droppings of horses, it prevents entirely that rapid fermentation so destructive to this kind of manure. Does it not also fix and retain the ammonia from their liquid evacuations?

S. B. P.

Muskegon, Mich.

BERKSHIRE HOGS.—The pure Berkshire hog is black, with streaks of white on the face and sometimes white spots on the legs. They grow to about the same size and weight as the Suffolks—usually dress about 200 lbs. at eight months old, and at one year reach from 300 to 350 lbs. It is almost impossible to get this breed in a lean condition. I sold a pair last season to a neighbor, who tried to reduce the sow in flesh, for breeding, and almost starved her, and yet she remained as fat and plump as ever. I have none for sale, so don't consider this a "puff."—T. B. M.



WALKS AND TALKS IN THE GARDEN.—No. I.

"What splendid weather we are having! A week ago the snow was still on the ground in some places, and now the soil is in first rate condition to work."

"True. There is some danger of cold weather yet. It seems scarcely possible that we are to have summer all at once. A warm April, like this, is often succeeded by a cold May. In such a climate, it is hardly worth while trying to have much of a garden without the aid of hand-glasses, or boxes with a pane of glass 8 by 10 on the top, fitting in a groove, so that the pane can be moved up and down for ventilation. The cost is but little, and the advantages very large. For melons, cucumbers, and Lima beans, they are indispensable."

"Even a box without glass is useful. An old cheese box is just the thing. A piece of paper, or anything that will break the wind, is advantageous."

"The prospects for fruit were never finer. These peach trees are full of fruit buds, and if nothing happens, we shall have a grand crop."

"Confound the borers! Got a knife? No gardener should ever be without one. Scrape away that soft mass. You'll find him. Up his hole, is he? Well, here is a piece of wire. Poke him up. Squelch! There is one rascal less."

"Lime and ashes are said to be good to destroy borers, scattered around the base of the trees. But I have not tried them. A writer in the last number of the *Monthly* says burning fluid, applied with a sponge around the roots of the trees, will destroy them. Or, if they are in holes, send it after them with a small syringe. Possibly good; but 'cold steel' certainly is."

"Too bad! isn't it? Nicer pear trees never were seen. Over thirty blighted. Well, plant again. There is nothing else to be done. Choice pears are a great luxury, and, like everything else, can not be enjoyed without labor. There is no certain cure for the blight, any more than there is for the cholera. People in good health suffer the least. So healthy pear trees are less liable to the blight. The great point is to have the wood thoroughly matured. It is possible that we mature too highly—especially with organic matter. Lime, ashes, superphosphate and other mineral manures, will probably be found favorable to the early maturity of the wood. Thorough summer pinching is also worth trying. Mulching during the early part of the season is undoubtedly good. But toward the end of summer, it strikes me it would be useful to sow some crop among the trees that would carry

off any excess of moisture in the ground, and thus check the succulent growth of the trees."

"Spurry is perhaps the best crop for this purpose. It can be sown the latter part of July. It is one of the best renovating crops known, and will grow late in the fall. It might lie on the ground all winter, and be turned under next spring. It is just the crop for peach orchards—far better than clover, as that robs the soil of moisture during the early part of summer, when the trees need all they can get. When plowed under, it would furnish a large amount of organic matter, and this on our light, sandy-soil peach orchards, is very desirable."

"It is not a hot-bed. Merely a cold-frame for sowing cauliflower and cabbage seeds in, and pricking out celery and tomato plants from the hot-bed. It is a great thing. Quite as important as a hot-bed, and less expensive. Plants raised in a hot-bed need hardening off before setting out in the open ground. And if you have not a hot-bed, a great many plants can be started in a cold-frame, such as cauliflowers, cabbages, tomatoes, celery, annual flowers, etc."

"No. Melons do not transplant easily. Sow them where you intend them to remain. Make the ground rich and let the soil be thoroughly pulverized. Sow six or eight seeds in a bill, and cover with a box. Attend to the ventilation. Pull out the weaker plants, and let three or four good, strong plants remain in each bill."

"Let the whole ground be dug, and manured if needed. The roots spread to a considerable distance. It is a great mistake to dig a small hole and put a little manure in it, and leave the rest of the ground so hard that the roots can not penetrate it, and so poor that if they could they would find little plant-food in it."

"Four feet is far enough apart for the hills. Pinch in the runners thoroughly. It is nice work for a lady who has any taste for gardening. You will get as many melons as if they occupied twice the ground, and they will be far better."

"Treat cucumbers in the same way."

"Rather risky to plant Lima beans yet. But I mean to try a few, and cover them with boxes. If they fail, it is only replanting."

"The mice have played the mischief with these grape vines. They have eaten off many of the buds and in some instances whole canes. They were laid down and covered with earth, but I guess it was not altogether free from rubbish, which afforded a harbor for the mice. Out on the trellises in the open ground, though covered in the same way, they have done no damage. These, trained to the fence, alone suffered. The fence drifted the snow and thus gave the mice a better opportunity to work. If they had been Isabellas I should not have cared so much, but who likes to have the Delaware, Diana and Rebecca used up in this way?"

"Those are some Oportos I got from Dr. SYLVESTER yesterday. If these are a sample, the Doctor sends out good vines. Canes as thick as your big finger, two feet long, with plenty of roots. I can not but think these more likely to succeed than the small plants, no thicker than a lead pencil, generally sent out by nurserymen. With proper care, however, even these do very well."

"They were taken out of their winter quarters yesterday. The canes are strong, and the buds large and healthy. Bending them down in this way, and putting a little soil on them, is the only way to *make sure* of a good crop of raspberries. The winter has been so mild that it was unnecessary this year, but this could not be known beforehand."

"The blackberries were left uncovered. They were trained to straight sticks last year, but this year, as you see, we are arching them over—tying two hills together across the rows, and leaving the stakes to train the young shoots to, so that they will be out of the way."

"Yes. The plan first recommended was to train them

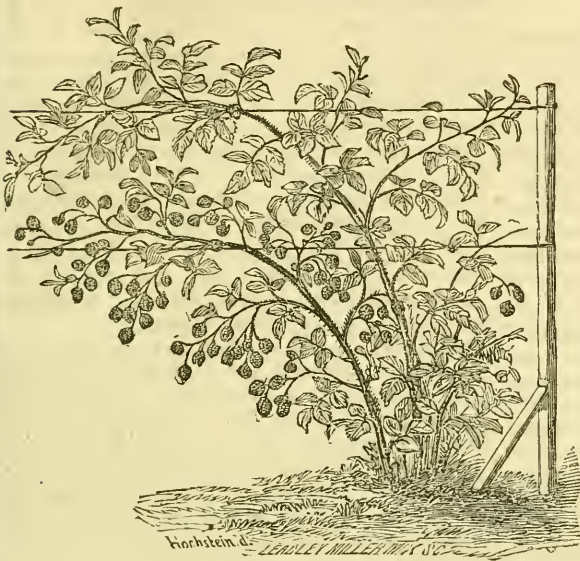
thin out. Onions and carrots, especially the Early Short-horn, can be thinned out after they are large enough to eat. In fact, these young carrots are more delicate than when older and larger."

"Oh, of course, always sow in drills. Who that has once had to weed onion beds would sow broadcast? It is less labor, and the hoeing benefits the crop. Nothing like the hoe. It weeds and waters and manures all at the same operation."

"The potato was by no means popular when first introduced, and its botanical brother, the tomato, as **BURR** says, was 'almost detested' in this country thirty-five years ago. Ten years later, it was the great panacea for all the ills that flesh is heir to, and the patent medicine men advertised all sorts of 'extracts of Tomato.' Now it occupies as much ground as the cabbage, and is found in every garden throughout the United States. Everybody likes it. It is good in all forms, in all seasons, raw or roasted, stuffed or stewed, canned or pickled, in summer or winter. It can be raised so easily and produces so abundantly that its culture has been recommended to farmers as a crop for their milch cows."

"Start them in a hot-bed and prick them out into a cold frame, when an inch or two high. This will give you early and *stocky* plants."

"One of the most successful tomato growers in this city tells me that he finds the plants which spring up from self-sown seed produce almost as early a crop as those raised in a hot-bed. He prefers a warm, light, sandy soil, not too rich. If too rich, they are apt to run all to vines, but this may be prevented by pinching them in thoroughly."



LAWTON BLACKBERRIES TRAINED ON WIRES.

to a couple of wires stretched along the rows and fastened to posts at each end."

"As you say, it is perhaps true that most gardeners sow peas too thick, yet for an *early* crop I like thick seeding. It seems to be a well established fact that *thick seeding* is favorable to early maturity. The plants being thick on the ground are checked somewhat in their growth, and thrown into premature fruitfulness, just as dwarfing a pear or apple will make it bear earlier. I have just sown a quart of Daniel O'Rourke in a row seventy feet long. The usual allowance is one quart for a row one hundred feet long. The English rule, I believe, is thirty peas for each lineal foot, for the early dwarf kinds; and for the late marrowfats, only twelve peas to the foot."

"I have heard of planting peas in hills three to five feet apart, and poling them like beans, and the plan strikes me favorably. They would get plenty of light and air. Five or six peas in each hill is enough."

"I believe in plenty of seed for all crops. You may calculate that 25 per cent. will not germinate, and 25 per cent. be killed after it has germinated, and another 25 per cent. of the plants be killed after they are up, by cold rains, winds, etc.! Sow enough to insure a crop and then

"Salsify, or vegetable oyster, is getting to be quite popular—as it deserves to be. At this season of the year nothing is nicer, when properly cooked. Like the parsnep, it can remain in the ground all winter. Cultivate as you do carrots."

"This ground where the celery was last year, is just the ground for beets—rich and deep. Sow a few radish seeds along the rows. They will mark the rows and enable you to hoe before the weeds get the upper hand. The radishes will be ready to pull before the beets need thinning."

"For a winter crop, sow the blood beet about the last of May."

"**BURR** says, 'those who can plant corn can plant Lima beans.' True enough; but it is one thing to plant and another to reap the fruit. Lima beans are planted in hills like corn, and some seasons require no more care. But often the first sowing perishes, and you must replant, and then the crop is apt to be late and poor. Make a good hill of warm, rich earth; work it over till it is as fine as an ash heap. Plant eight or ten seeds in each hill. If three grow, it is enough. If more, thin out. The poles should be twelve feet high, and it is better to stick

them in the ground at the time of sowing, and thus avoid the risk of disturbing the plants after they are up."

"A fork with five flat tines is better than a spade for most garden purposes. It breaks up the soil equally well and with less labor. Among trees, it is greatly to be preferred to the spade, as it does not cut off the roots. Grapes especially are often injured by spading the ground, even at a considerable distance from the vines. Few people have any idea how far the roots of the vines extend—or, for matter of that, of any other plant or tree. If cut off at this season, the roots of the grape will bleed as profusely as the canes. The Dutch hoe or scuffle and the digging fork should be more generally introduced into American gardens."

"But, excuse me, the sun is coming out, and I must go and cover over the glass of the hot-bed, and give a little more air."

FLOWERING OF THE COCO-NUT PALM.

A VERY great and wholly unexpected event, says the *Gardeners' Chronicle*, has occurred in English horticulture. The Coco-nut Palm has flowered. At Syon, where so many fine things have been produced which no other garden has seen, where the almost uncultivable Mangosteen has ripened its fruit in perfection, this the most valuable of all the products of the vegetable world provided by an all bountiful Providence for the support of man, has expanded its flowers. Not however on that lofty Palm tree which ROMPUS called the Arbor Calappus sive Cocifera altissima, but on a specimen of the pigmy breed from the neighborhood of Galle, in Ceylon. The trunk of the Palm at Syon is not, we should say above two feet high, and it is from among the magnificent leaves that form a bright green plume of unrivalled stateliness that the yellow blossoms have sprouted out. It must be highly gratifying to the noble Duke in whose celebrated garden this success has been achieved, to find that he alone in Europe is the possessor of so rare a specimen.

AMERICAN APPLES FOR ENGLAND.

WALTER ELDER, who visited Great Britain last year, furnishes the *Farmer and Gardener* some interesting observations on the agriculture of that country. We copy what he says about raising apples for the English market.

Apples all over Great Britain are far inferior to ours. If numbers of farmers near to railway stations or steamboat landing were to plant ten or twenty acres each with apple trees, and give them good culture, for the sole purpose of exporting them to Great Britain, it would be the most lucrative speculation they could enter into. They could be landed in Liverpool in a fortnight after they were picked from the trees, and in twenty-four hours more they would be transported to any part of the United Kingdom. Agencies could be made in our principal cities and in Liverpool, so that farmers would get ready cash for them as easily as they now get it for their grain. Indeed, if the thing were fairly begun, merchants would go and buy them upon the trees and take them away.

HENCES.—A correspondent of the London *Farmer's Magazine* says one of the great errors in planting hedges is the neglect of the subsoil. No matter how well the surface is prepared and the weeds kept out, if the subsoil is not right, the hedge can not be durable.

A POMOLOGICAL MAP.

MR. WILLIAM INGRAM, a correspondent of the London *Florist*, in a short article on the influence of soil and climate on pears, which he says are more susceptible to these influences than any other fruit, suggests that a Pomological Map of Great Britain should be formed, so that persons desiring to plant fruit trees may readily obtain information to guide them in the selection of varieties suitable for the section of country in which they reside. This would be fully as useful with us as in England. Indeed, even more so; for our country is still more variable as to soil and climate.

The complaint is often made that it is impossible to succeed in pear-culture, and undoubtedly one reason is that in purchasing trees no allowance is made for the peculiarities of the locality, where they are recommended, in transplanting them to other places. Mr. INGRAM mentions two places, only twenty-five miles distant, where the pears which in one are excellent, in the other are utterly worthless—scarcely one variety being equally good in both. Most fruit-growers know that they have often, in reading a list of fruits recommended by some local society, been astonished to find the names of pears which they had tried and knew to be tasteless and in every way poor, connected with such adjectives as "sweet, juicy, melting, aromatic, delicious;" and among the condemned list to find their favorites.

For nurserymen more accurate information on this subject would be invaluable, and would relieve them from much of the opprobrium which is now cast upon them by those whose trees prove a failure. There is so much interest now in pomology that it would not be difficult for the American Pomological Society to gather the necessary information for such a map as Mr. INGRAM suggests, if all the local societies would do their part in collecting and arranging the observations of experienced fruit-growers in their neighborhoods. Horticulturists are proverbially liberal in imparting information, and no one at all interested in the subject would hesitate to take the trouble to make the necessary record to promote this object.

DUCHESS D'HIVER, OR TARDIVE DE TOULOUSE PEAR.—

This new pear, an article on which, from the *Revue Horticole*, we gave in the July number of the *Genesee Farmer* last year, has borne the test of another season with great success, and appears destined to become a popular and useful fruit. A late number of the journal above mentioned publishes a colored plate of it. The specimen which is there represented is about four and a half inches in diameter, both transversely and longitudinally, being nearly spherical. "The grained skin of a clear green, sprinkled with fawn colored dots, is orange red in the sun, and at maturity takes a general color of pale yellow." A winter pear having the qualities ascribed to this one, must be of great value, and we hope that next year it will be introduced into this country.

LOW-HEADED TREES.—The *Illinois Farmer* says: "The system of low heads is bound to win, as one after another gives in his adhesion to it. It is certain that with high heads, the fruit crop is not only tardy, but uncertain; with low heads, we can not be any worse off, and may be much better. Let us give it a thorough trial."

"WHAT KINDS OF GRAPES SHALL I PLANT?"

At a recent meeting of the American Institute Farmers' Club, SOLOX ROBINSON said he had been induced to undertake to answer this question in consequence of receiving the following letter from a German friend:

I have two sons to whom I wish to leave each a vineyard. I came from Steinberg, and my sons inherit a love for the vine; but your favorite American kinds are not good to our palates. Now, will not the American taste soon so far improve as to reject such poor flavored kinds as the Isabella and Concord, and just as the vineyards come into bearing, will they not be found worthless, and the taste all gone to Delaware and Diana, which remind me of our own Traminer and Rissling, which refresh like wine? Please tell us, and by so doing, tell many in Monmouth county who, like us, desire to know. Have you had the long and extensive observation that is necessary to form an opinion, or can you tell me who has?

Your friend,

GOTLIEB BURZEL.

Mr. ROBINSON remarked that this is the most important agricultural question of the present day. It is important because it has now become as certain as anything of the future, that America will surely become a great vine-growing and wine-producing country. That this event will certainly happen we are just as sure as we are that France is already a great producer of grapes. The extent of vineyards already planted is greater than the mass of people have any conception of; and of the extent of preparation for planting no one has an idea, except the very few whose interest or taste has led them to inquire. We are assured by the best authority in this country that there are now planted, and in preparation for planting, at least a thousand acres of land in the small State of New Jersey, and that in only a few counties, and yet grape growing in that State has been as yet hardly thought of, and so little talked about that its own citizens are not generally aware of the progress of this new and great industrial pursuit of a few of the people. Yet in a few years the grape crop of New Jersey will become one of the most important of that State, and the product of its vineyards will not only furnish New York with an abundance of fresh fruit, but will put a strong check on the importation of wines.

There has been within a year past one tract of twenty thousand acres of forest land, in Cumberland county, opened to settlement, and a town laid out in its centre called "Vineland," because the proprietor believes the soil well adapted to the growth of grapes, and intends to encourage all the settlers to devote their attention to their cultivation. We should not be surprised to see five thousand acres of this tract planted or prepared for planting with vines within five years.

Monmouth county, too, will soon become as famous for its great crops of grapes, as it has been in past years for its peaches.

Pennsylvania is also moving, in all its breadth, from the Delaware to the Ohio, in its preparation to become a wine making State.

New York has already several vineyards of considerable importance, which furnish its cities with some hundreds of tons of fresh grapes, and some of them have made wine to a limited extent, which we hope never will be any greater until their proprietors learn to make something more worthy of the name of wine than the sweetened alcoholic beverages which they have produced, and which

some of them have the effrontery to advertise as "pure juice of the grape for sacramental purposes."

In Connecticut, there is at this time a very decided "awakening" upon the subject of grape growing, and large quantities are already produced, and the intention of making it eventually a wine-producing State is very evident.

Mr. ROBINSON mentions several facts, all tending to prove the Delaware the best of all the hardy American grapes. It was thought that it would not prove a popular market grape on account of its comparatively small size, but a gentleman who had sent them to the New York market found that those who once purchased them returned for more, and they had been sold at fifty cents per lb.

ORCHARD CULTURE AND ITS RESULTS.

IMMEDIATELY after the orchard is set, coarse manure or spent tan-bark should cover the ground from four to six inches deep over a diameter of six feet, with the tree standing in the center, and remain there during the first season, while the rest of the ground is being tilled with a hoed crop. Corn is preferable.

The plow should never come within three feet of the tree, nor any vegetable allowed to grow. Year by year the plow should recede farther and farther from the tree till it be excluded from the orchard entirely. Yet a surface culture should be continued by means of a cultivator, and the ground sown with buckwheat till the size of the trees exclude all culture except by hand. At this stage of the orchard, a general mulching might take the place of cultivation, or hog-culture when practicable, or any way by which the vegetation might be promoted to growing and the ground receive sufficient nutriment for the benefit of the orchard.

Pruning should begin when the trees have grown two years, and thereafter annually, with a knife, and no limb should remain to grow so large as to require a saw to cut it off that is to be removed at all.

The trees require the entire resources of the soil, in a good state of cultivation, from the time of setting out until it begins to produce crops of fruit, when manuring is necessary in proportion to the quantity of fruit produced. The supply to the soil must necessarily be in proportion to the crop of fruit produced in order to secure annual productiveness. Without it, the fruit will degenerate in quality, size and quantity, the trees become unthrifty and the orchard a failure, as is generally the case.

With good trees, set in a good soil, and well cared-for as above, small crops will usually be produced the fourth or fifth year, and an increase each succeeding year—often the eighth year the orchard averaging from one to two barrels of fruit per tree.

Annual productiveness from annual manuring is a settled fact, and the few (very few) who follow the rule reap a rich reward. I could adduce many instances in demonstration, but will mention two: In the first case the orchard was planted of one hundred and fifty trees, by BENJ. HOYT, of New Canaan, Conn., in 1853, on an old piece of land which had been under cultivation since long before the Revolutionary war. The trees were set eighteen feet apart each way, and treated after the above re-

commendation. His orchard began to bear the fourth year, and a regular increase of quantity continued till last fall (1861), when many of his trees averaged two barrels of apples each, and others nearly two barrels. He sold more than five hundred dollars worth from this single crop. The entire orchard of MOSES JONES, of Brookline, Mass., averaged over two barrels per tree the eighth year from planting.

Apple trees produce just as much fruit as there is material in the soil to sustain. A bushel of apples exhausts the soil as much as a bushel of potatoes, and nearly as much as a bushel of onions, and every farmer and onion raiser knows that he could not raise successive crops of these for a long time without great deterioration of the soil and crop, without annual manuring.

Deep plowing or seeding with grass or the small grains would soon destroy the value of an orchard. The feeding roots of the apple tree mostly run near the surface, and the plow would cut them off, and then the food necessary could not reach the tree to benefit the fruit. The orchard generally blossoms, and the principal assignable reason for the blasting and failures of a crop of apples, is want of food,

D. C. SCOFIELD.

Elgin, Ill., April, 1862.

DWARF DAHLIAS.

We have never admired the dahlia, either in the garden or on the exhibition table, as most persons think all lovers of flowers should. It has, without doubt, great beauty of color, and there is a certain charm in its regularly formed, wax-like petals; but it is too stiff for in-door decorative use, and is never fitted for bouquets. It seems to be totally destitute of the power of assimilating with other flowers—it can never be arranged except with the different varieties of its own species.

In the garden, it produces a fine effect; but to rank it, as florists do, with roses, camellias, china asters, and carnations, is, we must think, in exceedingly bad taste.

After these objections to these "grand autumnal flowers," we have pleasure in announcing that a new race of them has been introduced by leading European florists,—the Pompon or miniature-flowered varieties—to which some at least of the foregoing objections do not apply. They are a new race of the well known florists' dahlia. At the present, the principal difference consists in the somewhat more slender character of the plants, and the smaller size of the "flowers" or flower-heads, which latter may be taken as about half that of the varieties usually grown for show purposes. The average diameter of the flower-heads being a couple of inches, very few reaching $2\frac{1}{2}$ inches. Many of the free flowering plants have branches bearing three or four flowers, which are suitable for table bouquets. Their odor rather than their size exclude them from hand bouquets. Some of the varieties grow to a height of four feet, and some even five or six feet. Some form a fine, spreading-head of long-stalked blooms, while others are stiffer habit, with the blooms closer to the foliage and altogether less graceful. Some have the regularly cupped and shell-like florets of the best show flowers.

When these Pompon dahlias shall have been thoroughly dwarfed (as who can doubt they will be?) and we have

plants two or three feet high only, with the little balls of florets thrown out well above the foliage in gracefully spreading heads, we shall have one of the prettiest plants that can be desired for the garden in the late summer and autumnal months. At the present time, four feet plants are, as a rule, the dwarfiest of these Pompons which are available for the parterre, but these will be found to be very pretty objects in situations to which this stature is not inappropriate.

Some of the most desirable of the dwarf varieties are:

Annie—blush tipped; flower heads two inches in diameter.

Little Darling—bright rose crimson.

Canary Bird, sulphur; Child of Faith—white.

Fairy Nymph—rosy lilac.

Crimson Beauty—rich maroon crimson.

Star and Goldfinch—yellow tipped.

These grow three or four feet high.

MULCHING YOUNG FRUIT TREES ON THE PRAIRIES.

A CORRESPONDENT of the *Wisconsin Farmer*, residing at La Prairie, says that when he set out his first orchard he mulched his trees with manure, and let it remain through the summer. The consequence was, that as the manure became rotten, the white grub became so numerous that they ate the bark off around the roots and killed many of the trees. His neighbors suffered in the same way from the same cause, and he has come to the conclusion that if trees are mulched, it should be with dry straw, and when it begins to rot it should be removed. He adds:

I keep my orchard tilled and well manured, and do my pruning in the summer. I take pains to keep my trees free from worms, and have the most trifly and best bearing trees, according to age, of any in the neighborhood. I have a poplar and locust wind-breaker on the west and south, which I think is indispensable on the prairie. I am satisfied that if we observe this rule—that is, make a good wind breaker on the east, west and south—get the hardy kinds of fruit, and when one tree is lost, replace it with another, and take good care to keep the trees clean from their enemies—every farmer can have plenty of good fruit, even on the prairies.

GRAPE CULTURE IN CALIFORNIA.

THE Legislature of California last year authorized the Governor of that State to send a commissioner to Europe for the purpose of collecting information in regard to the culture of the grape, manufacture of wines, etc. The Governor appointed Col. HARASZTHY, and he at once proceeded to Europe on his mission. He has just returned and made his report, from which it appears that he has made large purchases of the cuttings of the best varieties of grapes cultivated in the different countries of Europe. They have been planted out, and it is thought over 300,000 rooted vines will be ready for distribution this fall.

Col. HARASZTHY thinks the soil and climate of California the best in the world for the culture of the grape. He also thinks "no country can surpass this (California) in raising the sugar beet, sorgho and imphee. There is no part of the world, except, perhaps, Africa, which can produce the same quantity of these commodities to the acre."

THE IMPORTANCE OF FRUIT CULTURE.

THE New York *World* calls attention to the sanitary defect of a plentiful supply of fruit in large cities, and adds: "To such an extent is the apple now made merchantable for foreign exportation as well as for consumption on our eastern sea-board; that four or five agencies in Boston and New York merchants bought about half a million of dollars worth of the last crop, in three of the best apple-growing counties of this State—Monroe, Wayne and Orleans.

This, to be sure, is far beyond the usual extent of this trade within such brief limits; but there are several other counties scarcely inferior to those above named, in which the traffic is large and growing—though it would be difficult to find any superior locality for this kind of product, or, we might add, for fruit culture generally—the soil and temperature being suitable, and the farmers and dealers finding reciprocal interest in promoting the increase and distribution of the crops. Here is example and stimulant for persons who desire rural pursuits—as fruit culture is freed from sundry difficulties (real or supposed) which prevent many from entering in ordinary farming.

The peach, the pear, and other fruits, find ready sale now within reasonable railroad distance of our eastern cities. Western New York is becoming, if it is not already, one of the greatest localities in the world for fruit of all kinds consistent with the temperature. The facilities of railroad transit to the seaboard enable that region to supply readily all the cities between Washington and Quebec. Boston and New York, however, are the chief marts of the trade. The prices realized for some of the best fruits, such as the choice pears, are almost fabulous. There are many other sections, both in the United States and Canada West, where apples can be raised with equal if not greater profit, than in Western New York—highly favored by soil and situation though it be. Every section should raise at least enough for its own consumption.

CULTIVATION OF THE STRAWBERRY.

EDS. GENESEE FARMER:—I now send you a few remarks taken from "Saxton's Rural Hand-Book," page 106:

CULTURE OF THE WOOD STRAWBERRY.—This variety is superior before any other in point of flavor, and if transplanted to gardens, may for two or three years answer very well, and if not too highly manured, preserve their flavor and increase their size. But new plants must be obtained every two or three years, from the woods, to make new plantations, or they will degenerate.

SOIL AND MANURE.—The soil proper for this variety, as well as all others, is light, warm and gravelly, and the manure to be applied should be exclusively vegetable, and not animal manure. The usual practice is to manure the ground with rotten dung, with a view to increase the quantity and quality of fruit; but, in doing this, the flavor is destroyed in proportion to the richness of the soil. Besides, high manuring produces strong vines, and no fruit. Often leaves, decayed wood ashes, in small quantity, mixed with other vegetable substances in a compact heap, will make better manure for strawberries than any animal

substance whatever. As the vines which bear this fruit require great moisture to bring the fruit to its proper size, the soil and solution in which they are placed must not be too dry.

PROPAGATION.—The usual time for transplanting strawberry plants is August. That time is chosen because they have done bearing, and have made offsets, if the season has been favorable, of strong plants, set from their runners. Plantations made at this season will bear some fruit the next summer. But if you can get good, vigorous plants in May of the preceding season, I prefer to plant them, as it saves a year nearly, the plants being ready to bear abundantly the next year.

Why could not wild flowers be transplanted in the same way?
C. S. R.

A FRUIT GARDEN FOR THE FAMILY.

EVERY family should have a fruit garden. Fruit is not only a great luxury—it is essential to health. A few dollars expended in setting out plants and trees will save many a dollar from being paid to the family physician.

First—You should have a small piece of ground, say from one-eighth of an acre to an acre for a fruit garden. This should be deeply plowed once or twice and thoroughly harrowed. Or it may be worked with a spade instead of the plow. Now procure from two hundred to five hundred strawberry plants, and set them out in rows three feet apart, and two feet apart in the row. The only culture they need is to keep out the weeds, and work the ground occasionally with the hoe. The following season you may rely upon a crop of berries that it will do your eyes good to behold. More bushels of strawberries can be produced from the same ground than potatoes.

A few dozen plants of gooseberries should be set out in rows five feet apart each way. The Houghton Seedling is the only variety we have found to succeed well in this climate.

Currants must not be forgotten. They are so indispensable to every family. In their green state, what delicious tarts and fine pies they make in early summer time, before we can obtain other fruit. When ripe, and served up with sugar on the tea table, they are liked by nearly every one. And what delicious jelly can be made from them to eat with roast turkey, or wild ducks, or other meats. How can the good wife get along without a few dozen currant bushes? The thing is impossible, and especially to get along well. The Large Red Dutch is the best variety. Plant in rows about five feet apart, and be sure to cover all the ground in which they are planted five or six inches deep with old straw, hay, littery manure, or something of the kind, so as to keep the soil moist and cool. With this treatment, they will make double the growth they otherwise would; their leaves will not drop in August, as they do when not mulched in this climate, and they will yield ten times as much fruit. Bear this in mind if you would have a large crop of currants.

The luscious raspberry must also come in—for it is one of the finest of fruits when in perfection. Put up in cans or bottles, like strawberries and peaches, it far surpasses either. The fruit is not as watery as the strawberry, and is better on this account for canning purposes. We always lay in a good supply, and have never found any one who did not relish them.

The New Rochelle or Lawton blackberry, where land can be had in abundance, and especially where wild blackberries are not abundant, should be planted. It will take two or three years to produce much of a crop; but then it will be found very prolific, and if the fruit is left on until perfectly ripe, it is excellent. All acknowledge that the blackberry is one of our most healthful berries. A hundred plants will be abundant for a family. They should be put in rows about eight feet apart, and six feet apart in the row. It is better to mulch the plants, as is also the case with all the plants we have mentioned. They will grow better and be more productive.—*Valley Farmer*

Ladies' Department.

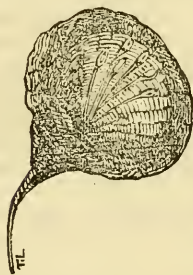
WORSTED FLOWERS.

GODEY'S *Lady's Book* is publishing patterns and directions for making bouquets of worsted flowers, and we have had a few of the prettier ones engraved, thinking that they might interest the lady readers of the *Genesee Farmer*.

CONVOLVULUS.

Cut a circle in pasteboard exactly sixteen inches in diameter. Make with a punch a small hole exactly in the centre. Make twelve marks on the edge of the card, at precisely even distances one from the other, and pass twelve pieces of wire through the hole, over the edge of the card, and through the hole again, at exactly the places marked. You have thus twelve sides of wire, perfectly regular. Fasten these wires firmly together, and cut at the ends.

Take yellow zephyr, attach an end to the wires at the hole in the card, pass this worsted round each wire once, back, and round the nest, till you make the circle. Make eight rows in this way. Fasten on white worsted by slipping it under one of the yellow rounds, and make six circles of white; then fasten on pale pink, make three rows, then three of a deeper pink, three still deeper, two again of the second shade, and then two of the lightest. Fasten off the zephyr, take the wire, and bend it to form a bow or cup-like flower, like the annexed engraving.



Take six light green pistils*, and, passing them through the base of the flower, attach them to a wire nine inches long; then finish by twisting green zephyr round this wire to form the stem.

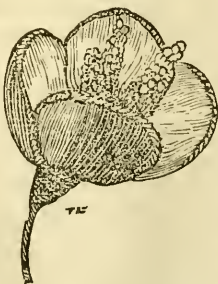
Blue or violet may be used instead of pink, if preferred, or the bouquet can contain one of each color.

ANEMONE.

Procure a mould two inches long and two inches wide at the broadest part; or, if you prefer it, cut one of smooth card. It should be exactly the form of a half circle at the top, but be sloped nearly to a point at the base, to form the shape of the petal of an anemone.

Take two pieces, twelve inches long, of brass wire, extremely slender, and with it encircle the mould.

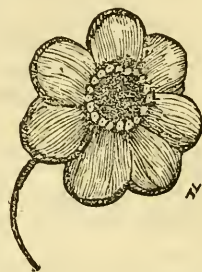
Take pink zephyr and wind it smoothly around the wire,



to form the edge of the petal; then carry the zephyr lengthwise from one side of the wire to the other, winding it over the wire each time it passes backward and forward, until the mould is entirely covered. Then remove the mould and twist the wire ends firmly together at the base. Make four of these petals exactly alike. Fasten a stem nine inches long, three large green stamens. Place the four petals round these stamens, fastening them lightly together. Twist green worsted around the stem

RANUNCULUS.

The ranunculus has seven petals of a bright red. The mould for these should be one inch and a half wide, and the petal formed like those of the anemone.



The heart of the flower is a deep maroon color. Make a circle of wire, and pass the maroon worsted across it until it is entirely and smoothly covered; then on the edges of this make small bunches of loops of green worsted, and between these place small yellow pistils. Fasten, out of sight, a stem, by putting four wires at regular distances on the circle which forms the heart, and twisting them together in the centre. Then sew the petals, as seen in the picture, to the maroon colored circle. Cover the stem with green zephyr.

SUMMER FASHIONS.

THE fashions for this season are but little changed from last year. In bonnets, the same styles prevail—white, crape and black lace, with bright colored flowers, and sometimes a band of ribbon, the same color as the flowers, is put across the bonnet and forms the strings. The flowers are not put on the front as before, but just above the cape, near the crown: or if they do commence on the front, they run back to the crown. Children's hats are a little altered. For boys, the crowns are rather high and bell-shaped. A white straw, with rather drooping brim, trimmed with black velvet, and a knot of lilies in the valley, makes an exquisite hat for a young girl.

Black and white checks, with sacques of the same material, are favorite street dresses. Standing linen collars and very narrow cuffs to match are much worn. Fancy neck-ties still continue in favor. Garibaldi shirts made like those worn with Zouave jackets, are now made of various materials, silk, muslin, marseilles, flannel, etc., and worn with any skirts—scarlet silk or flannel braided with black, are quite stylish.

Mantillas are made pointed in the back and with long square tabs, either fitting to the neck or as scarfs, and trimmed with ruffles. Barege shawls, like the drooping ones trimmed with ruches or bound with ribbon, will be much worn this summer, and short black silk sacques with little trimming, made like the cloth ones, will take the place of the long sacques and heavy mantillas that have made a warm day in summer such a terror to all fashionably dressed women for two or three years past.

* Stamens and pistils are usually purchased ready-made, but if you prefer it you can make them quite easily with an exceedingly slender wire, and some colored wax. Separate a piece of zephyr worsted into as many threads as possible, and with these wind the wire, and put the wax on the end, imitating nature as closely as possible.

Miscellaneous.

I idolize the ladies. They are fairies
That spiritualize this world of ours.
From heavenly hot-beds, most delightful flowers,
Or choice cream-cheeses from celestial dairies.
But learning, in its barbarous seminaries,
Gives the dear creatures many wretched hours,
And on their gossamer intellect sternly showers
Science, with all its horrid accessories.
Now, seriously, the only things I think
In which young ladies should instructed be,
Are stocking-mending, love and cookery—
Accomplishments that very soon will sink,
Since Fluxions now and Sanscrit conversation
Always form part of female education.

MONOTONY.—Monotony is pleasant in itself, morally
pleasant and morally useful. Marriage is monotonous,
there is much, we trust, to be said in favor of holy
flock. Living in the same house is monotonous; but
it removes, say the wise, are as bad as a fire. Loco-
motion is regarded as an evil by our Litany. The Litany,
usual, is right. "Those who travel by sea or land"
to be objects of our pity and our prayers; and we do
them. I delight in that same monotony. It saves
restlessness, anxiety, excitement, disappointment, and a host
of bad passions. It gives a man the blessed, invigorating
feeling that he is at home: that he has roots deep and
fixed down into all he has, and that only the Being who
can do nothing cruel or useless can tear them up. It is
pleasant and good to see the same trees year after year—
the same birds coming back in spring to the same shrubs
on the same banks covered with the same flowers. That
man who offered twenty pounds reward for a lost carpet
full of old boots was a sage, and I wish I knew him.
Why should we change one's place more than one's wife,
one's children? Is a hermit crab, slipping his tail out
of one strange shell into another, in the hopes of find-
ing him a little better, either a dignified, safe or grace-
ful animal? No. George Reddler was a true philoso-
pher—

"Let vultures go searching war and nigh,
We bide at whum, my dog and I."

—*Frazer's Magazine.*

WE are all naturally benevolent when no selfish inter-
ference interposes, and when no advantage is to be given up.
We can all pity distress when it lies complaining at our
feet, and confesses our superiority and happier situation.
I have seen the sufferer himself become the object of
pity and ill-will as soon as his fortitude and greatness of
soul had begun to attract attention, and to make the
pious person feel the superiority of birth over good
nature.

IMPORTANCE OF SWALLOWS.—As a proof of the valuable
services rendered by swallows, it is estimated that one of
these birds will devour 900 insects in a day; and when it
is considered that some insects produce as many as nine
generations in a summer, the state of the air but for
these birds may be readily conceived. One kind of insect
might produce 550,970,459,000,000,000 of its race in
a single year.

WHY are seeds when sown like gate posts? Because
they are planted in the earth to prop-a-gate.

A MANUFACTURER and vender of quack medicines re-
cently wrote to a friend for a strong recommendation of
his (the manufacturer's) "Balsam." In a few days he
received the following, which we call pretty strong:
"Dear Sir—The land composing this farm has hitherto
been so poor that a Scotchman could not get his living
off it, and so stony that we had to slice our potatoes and
plant them edgewise; but hearing of your balsam, I put
some on the corner of a ten-acre field surrounded by a
rail fence, and in the morning I found that the rock had
entirely disappeared, a neat stone wall encircled the field,
and the rails were split into firewood and piled up sym-
metrically in my backyard. I put half an ounce in the
middle of a huckleberry swamp—in two days it was
cleared off, planted with corn and pumpkins, and a row
of peach trees in full blossom through the middle. As an
evidence of its tremendous strength, I would say that it
drew a striking likeness of my eldest son out of a mill-
pond, drew a blister all over his stomach, drew a load of
potatoes four miles to market, and eventually drew a prize
of ninety-seven dollars in a lottery."

A BIRD-COLLECTOR died in Paris lately. A trait of sa-
gacity on his part was to insure the attendance of the
jackdaws of the Louvre to his funeral, which he effected
in the following manner: His residence was on the Quai
Voltaire, and for the last seven years of his life he always
placed on his balcony, exactly at three o'clock in the af-
ternoon, several plates of meat cut in small pieces. The
jackdaws were most punctual in their attendance. He
had, therefore, only to give directions in his will that his
funeral should take place at three precisely. The jack-
daws came that day as usual—and if he had wished to
have real mourners, he certainly succeeded; for, as their
usual meal had not been prepared, they were loud in their
lamentations, much to the amazement of all the friends
who attended his obsequies.

IN Venango County, Pennsylvania, is a queer fellow
by the name of Tom Barton, who drinks and stutters,
and stutters and drinks. He has a brother Jim, who is glib
of tongue, and was a great liar—we hope he has reformed,
for he professed to become a good man, and was baptized
in the river. It was a bitter cold day in winter, and the
ice had to be cut to make a place for the ceremony. Tom
was in attendance, and close by. As Jim came up out of
the water, Tom said to him:

"Is it c-c-c-cold, Jim?"

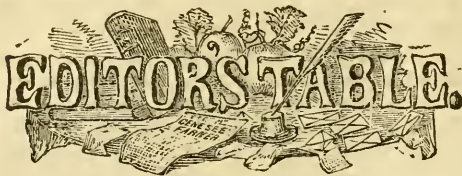
"No," replied Jim; "not at all."

"D-d-d-dip him again, m-m-minister," cried Tom; "he
-l-l-l-lies yet!"

THE word Timbuctoo, supposed to be rhymeless, was
once mated by a London professor of mathematics, who
was challenged to find a rhyme for it, in the following:

"If I were a cassowary,
On the sands of Timbuctoo,
I would eat a missionary,
Skin, and bones, and hymn-book too!"

"CAN you tell me, Billy, how it is that the chanticleer
always keeps his feathers so sleek and smooth?" "No."
Well, I'll tell you. He always carries his comb with
him.



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PREMIUMS.—We have sent of all the grape, vines flower seeds, books, etc., to those who are entitled to them for obtaining subscribers to the *Genesee Farmer*. We hope, and believe, they will give satisfaction. If any fail to receive them, we hope they will inform us. We are always happy to correct mistakes.

NOTES ON THE WEATHER FROM MARCH 15TH, TO APRIL 16TH, 1862.—The mean temperature of the first half of March was near the average, but of the second half was 3° below the average, so that the heat of March was 1.3° below the mean for 25 years. The month was rather pleasant—the winds not strong, storms not severe, and the heat not variable, as usual; cool, but not severely so. The coldest was 17° on the 26th, and the hottest, 49° on the 27th. No sleighing since the 10th, and the ice left Genesee on the 17th at its mouth, carrying one or two vessels into the Lake, without doing much damage.

A robin was seen on the 16th, and more soon followed with other spring birds.

On the evening of the 30th, a thunder shower of snow and rain of great extent. Here the lightning was brilliant at 9½ in the northeast; the shower was heavy at Auburn, and further east; at Pittsfield, Mass., was splendid. It also occurred in Medina county, Ohio, on the same evening.

The *ice-showers* in Niagara and Erie counties on the 15th was great in Herkimer county; very slight here, but splendid in some parts of Ohio.

The snow and rain give 5.15 inches of water for March. The snow had disappeared in the open fields, but also north and south fences and in the woods, it abounded to the close of the month. In the eastern and northern parts of the State, and in Massachusetts and the northern portion of New England, the snow is quite deep at the close of the month. The manufacture of maple sugar has thus been made more laborious, and the coming warm weather will lessen the expected amount. The month has been pleasant for business.

April began rather cool, and so continued, or rather colder, till the 13th; the last three days being quite warm and spring-like, giving us 70° at noon on the 14th, and mean of 57°, and 58° on the 15th for the mean. The half month has been regularly cool, and we have held to be very cold, owing perhaps to the snow on the ground and with so much wind from the Lake from the snow from Canada. Yet the average, 39.6°, was only 1.4° below the mean for 25 years. This is 6° lower than the average this half of April in 1858. On the 7th the temperature was, at sunrise, 22°, and at 7 A. M., 26°, and very little higher all day, and at eve down to 26° again. On the 8th and the 8th snow did not melt, nor the earth thaw, in the shade.

Little rain and snow have fallen in the fortnight; but as the snow, now gone chiefly, except in the woods, has melted slowly and the water passed into the earth, the springs are amply supplied. The dust is flying in our streets. The red maple was in full blossom on the 13th in warmer situations, but only stamens in them. Peach-blossoms in flower at Yorktown, Va., on the 11th.

The uniform weather of winter and of March is held to be very favorable to the wheat, and fruit trees have escaped any cold that would destroy their flower buds.

The snow and rain of the 7th to the 9th was heavy on the Potomac, and very trying to the army at Yorktown and further south: snow deep at Philadelphia and over Pennsylvania, and on mountains of Virginia; much less at New York; here we had northeast wind with fall of barometer, and snow expected, but no rain or snow.

Indeed, the storm did not cross the Alleghanies in the State of New York, if it did at the South. This storm began at Washington just after noon the 7th; at no time windy; but much rain and snow for parts of three days. The season is late; grass just shows itself; crocus in buds has been in bloom for a week; such warm days as the 15th will soon cover the earth with the dress of spring. At the last moment, we hear of the great depth of snow on the ground in the north part of the State and over Vermont and New Hampshire, and the mountains and hills and plains, too, of parts of Massachusetts.

BEARDSLEY'S HAY ELEVATOR.—One of the leading characteristics of American farmers is the readiness with which they avail themselves of mechanical contrivances for lessening the heavy labors of the farm. Allusions to machines for cutting grain are met with in the writings of the ancient Romans; and in England, BOYCE, SALMON, TITH, BELL and others invented and used reaping machines early in the present century; but it was reserved to America first to make the reaper generally available in the harvest-field.

At the present time, the greater bulk of our grass and grain is cut by machinery, and the period is not distant when the dreaded labor of gathering and harvesting our crops will all be performed by horse-power.

In fact, this is now the case on many farms, and at this time especially, when so many have left the peaceful pursuits of agriculture and taken up the sword and spear in defence of the laws and liberties of our beloved land, is obligatory on those of us who remain at home to adopt every mechanical invention that expedites and cheapens the labors of the farm. One of the best of these inventions is the HAY ELEVATOR.

Machinery has long been used for unloading hay. On the farm of DAVID LEAVITT, of Great Barrington, Mass., we have seen an apparatus that would unload hay at the rate of half a ton per minute. But it was too cumbersome for general adoption. What we need is something *cheap and simple*, that can be used on every farm. Such a one we believe is the Hay-fork invented by LEVI A. BEARDSLEY, of South Edmeston, Otsego county, N. Y. We are satisfied that its use will save much hard labor, and that it can not be too generally adopted on American farms.

D. FARMAN says he stacked fifty tons of hay with it last season, in stacks thirty feet high, and the fork lifted the hay as fast as three men could mow it away. We have received from Mr. BEARDSLEY a circular giving a full description of his Fork, with directions for its operation. Mr. BEARDSLEY will send one of these circulars to all who desire them.

Mr. B. informs us that he has sent one of his machines to Prince ALBERT'S Model Farm at Windsor, England, and also one to LOUIS ADAMS, of Moscow, Russia. It will so be exhibited at the World's Fair in London, and we doubt not it will attract considerable attention, and add another triumph to American ingenuity.

CHINESE SUGAR CANE SEED FREE.—I. W. BRIGGS, of Macedon, Wayne Co., N. Y., writes us that he will send any of the subscribers to the *Genesee Farmer* a package of pure sorghum seed on a receipt of a one cent envelope with the address of the party wishing the seed written on it. Send for a package.

The Markets.

OFFICE OF THE GENESEE FARMER, }
ROCHESTER, N. Y., April 24, 1862. }

WHEAT has fallen about 8 cents per bushel since last month's report. It is now about the same price as last October, and from 8 to 10 cents per bushel less than at the commencement of the present year. Millers and speculators expect a rise. Perhaps the wish is father to the thought. Future prices depend on so many contingencies that we can not hazard an opinion at present. The wheat crop in England is very promising and prices declining. In this country, so far as our correspondents have informed us, winter wheat generally looks well, and fully an average breadth has been sown.

We have had rather a mild winter, but the spring opened late. Very little plowing has yet been done in this section. But there is still plenty of time to put in the crops in good condition.

No change in the price of barley.

Oats are a shade better.

Corn is about the same as last month: It is 5 cents per bushel lower than at the commencement of the year. In fact, all grains are lower than they were four months ago.

Farmers may expect good prices for their wool the present season, though some of the dealers think the clip will be unusually large and the demand but moderate. At all events, a large advance on last summer's prices may be looked for with confidence.

NEW YORK CATTLE MARKET.—In the New York market April 16, there were only 3,517 beeves, or 1,600 less than the previous week, and 1,000 head below the average of last year. Over 200 head were taken by Government, and the remainder sold rapidly at improved rates. One fine drove came from Virginia. Two-thirds of the cattle hailed from Illinois, and were of excellent quality.

There was a large supply of sheep, and prices declined 50 cents per head. Country dressed mutton sold at $3\frac{1}{2}$ to 6 cents per lb., according to freshness and fatness.

Milch cows are in little demand, and the market is overstocked.

Good calves sold at 4 to 4 $\frac{1}{2}$ cents per lb., live weight.

Heavy fat hogs were in somewhat better demand.

Horses are in better demand. Some first-class coach pairs sold at \$800 to \$950 per pair. Good single horses, for family or road, \$200 to \$300 each; those with speed, \$300 to \$450. First-class draft horses, \$200 to \$225; second-class, \$150 to \$175. Canadian ponies, \$60 to \$116 each. Railroad and omnibus horses, \$110 to \$125.

Clover Seed is in better demand. It sells in this city at \$4.37 $\frac{1}{2}$ to \$4.75.

Eggs are plenty at 9 to 10 cents per dozen.

Butter 16 to 17 cents per lb.

SEEDS FOR THE MONTH OF MAY.—We would call the attention of our readers to the advertisement of Messrs. J. M. THORBURN & Co., of New York. The new postage law allowing seeds to be sent by mail for one cent per ounce (instead of six cents, as previous) affords an excellent opportunity to get the choicest and best seeds at reasonable rates. The Messrs. THORBURN have one of the largest and best seed establishments in the United States, and anything that is ordered from them will give satisfaction.

THE LADIES' DEPARTMENT.—Some of our brethren of the press fail to give us the usual credit for articles copied from the *Genesee Farmer*. Especially is this true as regards the "Ladies' Department." The articles for this department are written expressly for the *Genesee Farmer* by a lady of experience, and we are not surprised to see them extensively copied. We do not object to this in the least, but simply ask that proper credit be given.

SELF-RAKING REAPER.—SEYMOUR, MORGAN & ALLEN, of Brockport, N. Y., manufacture an excellent self-raking reaper. See their advertisement in this number.

THE GRAIN TRADE OF CHICAGO.—The following facts are obtained from the recent Report of the Board of Trade of Chicago. They show the movements in the articles mentioned at that port for 1861. The grades of wheat are: No. 1 white winter, of which 57,750 bushels were shipped; No. 2 white winter, 47,250 bush. shipped; No. 1 red winter, 374,850 bush. shipped; No. 2 red winter, 546,950 bush. shipped; rejected winter; 82,110 bush. shipped; extra club, 350 bush. shipped; Northwestern club, 238,000 bush. shipped; No. 1 spring, 6,772,718 bush. shipped; No. 2 spring, 7,006,716 bush. shipped; rejected spring, 1,913,588 bush. shipped. Total, 16,940,282.

The quantity of corn inspected was 25,261,123 bushels. Of this, 24,900 bushels were pure white, 452,300 pure yellow, 22,348,582 mixed, 2,266,988 rejected. It is estimated that, in the wheat and corn given above, the farmers lose over \$500,000 in not properly cleaning the first and in unnecessarily mixing the latter. Either pure white or pure yellow corn is held from one to three cents higher in the market than the mixed.

The quantity of rye inspected was 487,649 bushels. Of this, 409,619 bushels were No. 1, 9,800 No. 2, and 68,050 rejected.

The number of bushels of oats inspected was 1,072,556. Of this, 962,706 bushels were No. 1, 14,950 No. 2, and 94,000 rejected.

The quantity of barley inspected was 108,945 bushels. Of this, 5,250 bushels were No. 1, 82,650 No. 2, and 20,555 rejected.

The capacity of grain storage in the city is estimated at 45,970,000 bushels. There are fourteen elevators in operation, with a capacity for receiving and shipping daily 675,000 bushels. They can ship daily, when in store, 1,750,000 bushel. This capacity for shipping will soon be added to by at least 300,000 bushels daily by two other houses.

FARMERS, WRITE FOR YOUR OWN PAPER.—The editor of the Ohio *Field Notes* thus eloquently urges his readers to write for the paper:

"Give us field news, stock news, horse talk, cattle talk, hog talk, bear talk, turkey talk, fox talk, duck and goose talk, always giving preference to the more useful and substantial items in the above list. Write early, write often, and continue to write.

Take up your rusty pens, O! ye Cattle Kings, ye Horse men, ye Shepherd of hill and plain, ye Dairy men and women, ye Wheat growers, Corn growers, Grass growers, ye Apple Kings and Garden diggers, ye men and women of the rose tree and the pansy bed, ye lovers of the grape and the juices thereof, ye Nimrods of the bush and the saddle, ye Women of the gridiron and the frying pan, who know the mysteries of broiled quail and lordly steaks, and such generous dishes as make us stout and good natured."

PRETTY GOOD.—A lady friend of ours was reading over the list of Premiums on the last page of the March number of the *Genesee Farmer*. Coming to No. 8, where for eight subscribers we offer to send the "Horse and his Diseases," she remarked, "I should prefer the horse without the diseases."

MOTHS.—A correspondent of the London *Field* recommends tallow candles, (common,) done up in paper, and put in the sack or drawer with cloths, to prevent moths destroying the cloth.

Literary Notices.

NOTICE TO QUIT. By W. G. WILLS, author of "Life's Footshadowings." New York: HARPER & BROTHERS, ADAM'S DAIRY.

One of the fifty cent novels which are being constantly issued by this well known publishing house, and neither much better nor worse than the average.

THE STEP-MOTHER. By the author of the "Heir of Relycle." D. APPLETON & CO.

This, like all Miss YONGE's novels, is interesting in its peculiar style, and has the charm of teaching a pure morality and a practical religion.

AIDS TO FAITH; A Series of Theological Essays. By several writers. Edited by WILLIAM THOMPSON, D. D. New York: APPLETON & CO. STEELE & AVERY.

This is an answer to the famous "Essays and Reasons." Equally well written with the book to which it replies, it will probably not meet with half the sale, as truth is always stale, while even cast-off errors have a charm to a certain class of minds, which includes a large proportion of the reading public. If faith, once shaken, can be restored by logic, the skeptic would find here an excellent refutation of his doubts concerning miracles, prophecy, inspiration, and cognate subjects.

SPACE HOURS. By JOHN BROWN, M. D. Boston: TICKNOR & FIELDS.

One of the most fascinating books that has been published this season. "Eab and his Friends" would redeem a stupid book, but every article in this is worth reading, as well as too interesting to leave unread.

RELIGIO-MEDICI. A Letter to a Friend, Christian Morality, and other papers. By SIR THOMAS BROWNE, M. D. Boston: TICKNOR & FIELDS.

A republication of an old book, which has a quaint charm of its own—an exceedingly pleasant companion for a thoughtful leisure hour.

TREE PEDDLERS.—B. SMITH, of Cuba, Missouri, in an article in the St. Louis *Valley Farmer*, advises farmers "set the dogs on the tree peddlers when they come around." Dishonest tree peddlers are a great nuisance, and, while we can not endorse Mr. SMITH's recommendation, we could wish that farmers would deal only with men who sell for respectable nurserymen. There are many such—men who sell good trees and deliver them according to agreement—but it is not likely that they are often found in Mr. SMITH's neighborhood!

PACKING EGGS FOR LONG JOURNEYS.—The best substance for packing eggs that have to be sent long distances by rail or otherwise, especially if intended for sitting, is *husks of buckwheat*. Bran and grain are full of dust, and should not be used unless each egg is wrapped in paper. These substances also are apt to pack, and the pack becomes one solid mass. There is no elasticity, and constant jars break the delicate membrane which surrounds the yolk in the shell, and the egg is "killed."

AGRICULTURE THE GREAT INTEREST OF THE NATION.—According to the census of 1850, the total capital of the United States was about \$6,000,000,000. Of this sum, 5,000,000,000, or five-sixths of the whole amount, was invested in agriculture. The late Prof. JOHNSTON, of Scotland, estimated that nine-tenths of all the fixed capital the world is embarked in agriculture.

CHAPPED HANDS.—A correspondent informs us that he finds equal parts of lard and camphor, well mixed, a cure for chapped hands.

Inquiries and Answers.

SEEDS FOR SUGAR.—(J. H. COLDWELL.) The "common red beet" is not grown for this purpose. The Silesian red beet is the variety that is grown for the manufacture of sugar.

ILLINOIS COFFEE.—(JOHN SHELTON.) We would not advise you to purchase any of this so-called coffee. More recent information indicates that there is considerable fraud about it.

UNDERDRAINING AN APPLE ORCHARD.—(F. R.) Put a drain between each row of trees, say from three to four feet deep. Drain tiles or pipes are better and cheaper than stones. If you use stones, it will be necessary to cut the drains wider.

WINTER APPLES.—(J. B., *Pennsylvania*.) Our nurserymen here can probably furnish you apple grafts, if applied to. A good selection of winter varieties in your locality should contain Golden Russet, Yellow Belleflower, and Rich's Cider, Fallenwalder, Rhode Island Greening and Edwin.

WHAT SHALL I DO WITH AN EGG-EATING HEN?—(JOHN WILLIAMS.) Give her plenty of food—not too much of any kind of grain, but a little of several kinds, such as wheat screenings, barley, rye, oats and Indian corn, with a little fresh meat. If after this she eats her eggs, put her in the pot with a piece of pork.

WORMS INFESTING THE BLACK CURRANT.—(J. H. F. *Utahburg*.) It is true as you state, although probably new to most of our readers, that the black currant, in some localities, is infested with a kind of span worm (some call it *Abraxas*) which feeds upon the leaves. During the present season, we shall endeavor to procure specimens of this insect in its various stages, and will then make of it more fully.

GRAFTING WAX.—(J. B., *Drayton P. O., C. W.*) For either grafting, or for saturating strips of cloth to be used inside, the following composition will be found very good: 1 lb. tallow, 2 lbs. beeswax, and 5 lbs. rosin, melted together.

For grafting large trees, where the wax is to be applied directly to the graft, a mixture about in proportion of 1 lb. tallow, 3 lbs. beeswax, and 8 lbs. rosin, will be found to work well.

MAHALEB CHERRY FROM LAYERS—DOUBLE WORKED LAYERS.—(R. H. M., *Palmira, Ind.*) We think your experiment of growing mahaleb stocks from layers will prove a failure; if not so, please inform us.

When a dwarf pear tree is desired of some variety which does not succeed well on the quince stock, the stock is first worked with a sort which forms a strong union with it, and afterwards the new pear shoot is grafted or grafted with the variety which is to form the tree.

OSAGE ORANGE FROM CUTTINGS.—(R. B., *St. Thomas, W.*) We have had no experience in growing Osage orange from cuttings. A gentleman in this city informs us that some green cuttings clipped from the hedge at the last summer pruning, that were accidentally nearly covered up, were found after a few weeks to have many

among them that were well rooted. A friend of his says, also, that he has succeeded in a measure in striking ripe cuttings.

There has never yet existed a necessity here to employ this mode of propagation, since the seeds are to be procured so cheaply.

SMUT IN WHEAT.—(J. H., *Buffalo, N. Y.*) There are several ways of preparing seed wheat to prevent smut. The spores of the smut adhere to the seed wheat, and the object is to destroy them before sowing the seed. The common way is to moisten the seed with fermented chamber lye, and then dry it with quick lime. The spores of the fungus contain considerable oil, and the ammonia of the lye and the lime attacks this oil, forming a kind of soap and destroying the vitality of the smut. An equally effective remedy is to wash the seed wheat with a solution of blue vitriol (sulphate of copper). For each bushel of seed, dissolve three or four ounces of blue vitriol in about one quart of hot water. Spread the wheat out on a floor, about six inches thick, and, when cool, sprinkle the solution equally over it, and then mix thoroughly with shovels till every grain is moistened. Old wheat will require a little more water. The seed will be ready to sow in two or three hours, though it is better to allow it to remain a day or two before sowing. When treated in this way, lime should not be used, as it will decompose the sulphate of copper and do harm rather than good.

MADDER SEED.—Can any one tell me where I can get madder seed or sets, price, etc.?—E. WARE, *Hancock, N. H.*

JAVA WHEAT.—Can any of the readers of the *Genesee Farmer* tell me where I can procure some Java wheat seed?—GEO. N. PEACOCK, *Porter's Corners, Saratoga Co., N. Y.*

HARD SOAP.—Will some one, through the *Genesee Farmer*, give us a receipt for making hard soap. It would please me, and probably many others.—D. E. DAVIS, *Dundaff, Pa.*

COTSWOLD SHEEP.—I wish to buy a Cotswold ram the coming summer. Will those who have one from 8 to 24 months old tell me the price, etc.—S. ANSBAUGH, *Domestic, Williams Co., Ohio.*

AN OLD ORCHARD.—I have purchased a farm which has an old orchard on it that has not been trimmed for some time. What is the best course to pursue in such a case?—G. R. LAWSON, *Murray, C. W.*

CRANBERRY CULTURE.—Your subscribers in this vicinity would esteem it as a favor if some one would give us information respecting the culture of cranberries, the most desirable varieties for market, etc.—M. GUERNSEY, *East Cobleskill, N. Y.*

HUNGARIAN GRASS AND FLAX.—I should like to obtain some information in regard to the cultivation, product, value as food, proper time for cutting, etc., of Hungarian grass. Probably some of the readers of the *Genesee Farmer* can give the desired information.

Also, some information in regard to cultivation of flax, produce of straw and seed per acre, and also the amount of clean flax, with the best mode of preparing it, proper time and best plan for rotting, for cottonizing purposes.—B., *Evansville, Ind.*

UNDERDRAINING AN ORCHARD.—Will some of your correspondents who have had experience give me some instructions about underdraining. I have planted some apple trees on a piece of ground a little rolling or descending, so that some fall may be obtained. The ground is not wet, but I have been led to think that underdrain-

ing would improve it. My trees are about 30 feet apart. Will it be necessary to make a drain for every row, or will a less number be sufficient? Will there be need of cross drains? How deep should the drains be made? I intend to put in small stone, so as to allow the water to filter through. How small should the stones be broken for this purpose? How deep should the drains be made? To what height should they be filled with stone? What precaution will be necessary to prevent the soil from falling or washing in among the stones, so as to obstruct the passage for water?—T. R., *Crawford Co., Pa.*

LEACHED ASHES.—(ROBERT MACAULEY.) They are good for almost any crop on light land.

UNLEACHED ASHES FOR CORN.—(R. M., *Hamilton, C. W.*) Apply a handful to each hill after the corn is well up, before the first hoeing.

TO CLEAN FOUL CASKS.—(R. T.) Fill them with meal or bran and water, and let them stand until fermentation takes place. The casks, it is said, will then be sweet, and the mixture will be better than before as food for swine.

GRINDING SUGAR BEETS.—Can sugar beets be ground in a common cider mill, and the juice be boiled down to sugar or sirup in the same way as maple sap.—C. W. D.

They can. But will some of our readers, who have had experience, favor us with an article on this subject?

HOEING AND HARROWING WHEAT IN THE SPRING.—(H. B. H.) There can be no doubt that hoeing wheat in the spring is very beneficial. The only question is, "Will it pay?" Try half an acre or so and determine this question for yourself. We have known wheat benefitted materially by harrowing it early in the spring.

COPPERAS FOR SEED CORN.—(WM. HAINES.) The object of using copperas for seed corn is to prevent worms, squirrels, chip-munks, crows, &c., from eating the seed. It has no effect on the cut-worm and other insects that eat the blade. One pound of copperas is sufficient for a bushel of seed. Dissolve it in warm water sufficient to cover the seed, and let it soak for twenty-four to thirty-six hours. If necessary, dry it with plaster, but not with lime, as the latter would decompose the copperas.

A COW SUCKING HERSELF.—(A Subscriber.) Many remedies have been published in back numbers of the *Genesee Farmer*. The last we have noticed is to split the cow's tongue with a sharp knife, about two inches, making two equal parts. Give her soft food for two or three days, till the tongue heals, when she will be as well as ever and effectually cured.

Another remedy is to smear the teats with grease and dust, then with cayenne pepper. A few dressings, it is said, will effect a cure.

ORNAMENTAL VANES FOR FARM BUILDINGS.—As your paper is designed for improvement in rural affairs, I would offer a suggestion that you publish, in a future volume of the *Farmer*, a number of designs, with illustrations, for an ornamental vane, to be placed on the ridge of the wagon-house, as that is generally the most conspicuous of out-buildings. The designs should embrace some variety from cheap wooden structures, or mostly so, to more costly styles. Those of wood should have the spire turned in a lathe and fastened on the building by cutting through the ridge-board and fastened on the inside. Those of metallic materials should have a base of cast-iron, with four legs, spiked to the roof on the ridge and connected with the lightning-rod. These would improve the appearance of out-buildings very

much. You could procure the designs in no better way than by offering a prize similar to those formerly offered for prize articles, so that you could procure a number of different styles.—CYRUS BAKER.

We will cheerfully give a copy of the *Rural Poetry of the English Language*—a three dollar book—for the best essay on this subject, with illustrations.

SUCKERS ON APPLE TREES.—(E. WALKER.) If on the body or limbs of the trees, strip them off as fast as they are formed. If not allowed to grow too large, a knife will be unnecessary, as they can be stripped off quite easily. Suckers at the base of the trees are less easily destroyed. We know of no other way than to cut them off as fast as they appear, and keep cutting. Probably some of our readers can give us a better plan.

AMMONIA, SUPERPHOSPHATE, &c.—In what form ammonia, or sulphate of ammonia, or superphosphate of lime, to be bought for manure? These terms are puzzling to a beginner.—R. M., *Hamilton, C. W.*

Ammonia is a gas, lighter than the atmosphere. It is an alkali, and unites with sulphuric acid, forming sulphate of ammonia. This is a salt, quite soluble, but volatile. It can be obtained in New York for seven cents per lb.

Superphosphate is made from bones. It is, in fact, soluble bones. The bones are made soluble by the use of sulphuric acid. RHODES' superphosphate, advertised in this number, is one of the best articles in market.

"IS THERE ANY CURE FOR HEAVES IN HORSES?"—(J. WEST.) There is probable no absolute cure. But much may be done to help the horse. Feed him on cut hay, and mill-feed moistened in water. Work him gently, and never let him drink more than a pailful of water at a time. In this season of the year give him a tablespoonful, every other day, of a mixture of equal parts by weight of sulphate of petre, sulphur, antimony and powdered liquorice-root. It is one of the best "condition powders" we have ever used.

SOAP FOR SEED CORN.—(A Canadian Subscriber.) MARSHALL's plan of preparing his seed corn, as given in the *Genesee Farmer* of last year, is as follows:

"Heat some soap in a kettle, and then pour the soap on the corn. It is better to have the corn in a large kettle, (not the kettle in which the soap is heated,) as it can be stirred better than in a tub. Stir the corn at the same time the soap is poured on, till all the kernels are smeared with it. Then add as much plaster as will cover the kernels to separate, and nicely dry the seed. His object is to get as much soap and plaster to adhere to the seed as possible. He does not prepare more seed at a time than can be used in half a day. Keep it standing in shade. If exposed to the sun it will dry, and cause the soap and plaster to scale off. The soap and plaster do the moisture, and cause the seed to germinate and come up quickly, and the plants look healthy and vigorous."

BEET ROOT SUGAR.—In the March No. of the *Genesee Farmer* I find an article on the "Cultivation of the Beet Root for Sugar," and being well satisfied that the farmers of Canada, in many localities—myself among the number—would do better to change their practice in farming (as many are doing), the inquiry with me is, Would beet root sugar-making be preferable to the cultivation of flax, which is so often urged upon us? If the figures in the article in question are nearly correct, I am confident they would, and have determined upon trying it in a small way if I can get the right kind of seed and necessary instructions in the art of manufacturing the sugar. Knowing of no better way of obtaining the requisite information

I write you, hoping that you will be able, through your paper, to inform your numerous readers where the true seed can be obtained, and also the right directions for making the sugar, with the implements needed in its manufacture.—DAVID BASTADO, *Princeton, C. W.*

You can get true Silesian beet root seed from J. M. THORNBURN & Co., New York. Your other inquiries shall be attended to in a future number.

SNAILS, SLUGS, &c.—Can you inform me of a good and sure way of getting rid of the snail or slug? They are getting to be quite an annoyance on cabbages, tomatoes, &c., &c. I can not afford the expense of a galvanic battery for each vine and plant, and have used, with some success, lime and plaster and ashes, one at a time, dry and sprinkled carefully on the ground so as not to touch the fruit.—LEWIS DE VOLK.

CHINESE SUGAR CANE SEED.—(S. ROBERTS.) Sorghum seed was mostly obtained from the Southern States. The supply is of course cut off. We must now depend on seed imported from France. It is thought that much spurious seed will be thrown on the market. B. K. BLISS, of Springfield, Mass., in an advertisement in this number of the *Farmer*, states that he has imported a quantity from the well-known house of VILMORIN & Co., of Paris. Mr. BLISS is an honorable and reliable man, and we have no doubt his seed is genuine. At all events we intend to use it ourselves.

LARGE AND SMALL SHEEP.—(T. T.) For mutton the large sheep, other things being equal, are the most profitable. For wool the reverse is true.

It has been proved that, as a rule, sheep consume food in proportion to their live weight; and it has also been demonstrated that Cotswolds [large sheep] fatten more rapidly from food consumed than the South Downs [small sheep.] On the other hand it has been shown that small sheep produce more wool, in proportion to live weight, than large sheep. And, of course, it follows that, when wool is the only object, the small sheep are the most profitable—they produce more wool in proportion to the food consumed.

ITALIAN RYE GRASS.—(A. P.) When sown alone, from 35 to 40 lbs. of seed are required per acre. The seed weighs from 15 to 18 lbs. per bush. It can be sown either in the spring or fall. As a general rule it lasts but two years in perfection, although there are instances in which five or six crops have been mowed in successive seasons; but it is probable that the land was resown from the seeds dropped from the crop, as it sheds its seeds very easily.

It delights in rich, deep soil. The land can not be too wet. No crop will bear so much forcing. It is of all grasses the best for irrigated meadows. It has not been sufficiently tried in this country to warrant us in speaking more fully of its merits. We hope you will give it a trial, and report the result.

Special Notices.

RHODES' SUPERPHOSPHATE.—THE STANDARD MANURE.—Manufactured under the supervision of the eminent manufacturing and analytical chemists, ROBERT B. POTTS and FREDERICK KLETT. The Sulphuric Acid is produced on a large scale at the works at Camden, N. J.

Guaranteed perfectly pure and free from all adulteration. Dr. EVAN PUGH, President Penn. Farm School, in his Report on Artificial Manures, published in *Country Gentlemen* March 27th,

1862, says: "RHODES' is the cheapest American superphosphate, and if Mr. RHODES will sell under legal guarantee an article to contain even 14 or 15 per cent of anhydrous phosphoric acid in combinations soluble in water (with ten minutes boiling), his manure would deserve unqualified recommendation as one of the very best superphosphates manufactured in the world, and very much better than any manufactured in this country."

The following report of analysis of one thousand (1,000) tons RHODES' manure, made by G. A. LIEBIG, shows even higher results than Dr. FUCH requires;

BALTIMORE, February 28, 1862.

MESSES. B. M. RHODES & Co.—GENTS: I have analyzed the two samples of RHODES' manure which were averaged from a lot of one thousand (1,000) tons at the works, and sent to me by MESSRS. POTTS and KLETT.

Sample No. 1 contains of phosphoric acid soluble in water 16.84 per cent, equal to 27.75 of bi-phosphate of lime.

Sample No. 2 contains 16.44 per cent, which is equal to 27.10 of bi-phosphate of lime.

Both of the samples came fully up to the standard qualities of your Superphosphate.

Very respectfully,

G. A. LIEBIG, Ph. D.

Agriculturists and dealers apply to B. M. RHODES & Co., office 82, South street, Baltimore. Also, HENRY E. MORING, General Agent for New York and New England, 97 Pearl street, near Hanover Square, New York.

THE FOLLOWING REPORT was made at the late Fair held at Utica, N. Y., upon the merits of Sewing Machines. The Report will be interesting to those inquiring for the best Family Sewing Machine:

"We come now to the last article on our list—specimens of 'Machine Sewing. We confess our great hesitation in deciding upon their merits, where all are so well done; but feel assured that our judgment must meet with approval when we award the 'First Premium to No. 971, W. S. Taylor (Grover & Baker's Machine), considering the variety of articles made up of different materials, exhibited there. To No. 306, two machine-made shirts, Mrs. Gallup (Wheeler & Wilson's Machine), we would recommend the Second Premium. In justice to our decision, we would no ice the fact that all the specimens of work done on the Wheeler & Wilson's Machine are upon plain, heavy fabrics, which are not considered by the ladies so good a test of the powers of a machine designed for family use, as when lighter materials are neatly made up by a skillful operator."

Mrs. SELDEN COLLINS, *Ch'n*,

Mrs. C. S. BENNETT,

Mrs. GEORGE LANE,

Mrs. G. O. GREENHILL,

Committee.

ADVERTISEMENTS.

A FEW short advertisements of interest to farmers—and only such—will be inserted in the *Genesee Farmer* for twenty-five cents a line, or \$2.50 per square, each insertion, payable in advance. To secure insertion, they should be sent in by the 15th of the previous month. The *Farmer* has large lists of subscribers in every State and Territory, and in all the British Provinces. (It has nearly 5000 subscribers in Canada West alone.) There is no better or cheaper medium for advertising everything of general interest to rural residents in all parts of the United States and Canada.

We will also insert a few "Special Notices," if appropriate to our columns, at fifty cents a line.

MOLE PLOWS—By J. DUNHAM, Ithaca, N. Y.

3—lf

MARBLEHEAD CABBAGE SEED.

STONE MASON Cabbage seed, 25 cents per oz., 75 cents four oz., \$2.67 per lb., postpaid by me. HUBBARD SQUASH, the purest grown, 12 cents per package, \$1 per lb.

77 CIRCULARS, containing Priced Lists of every variety of Garden Seeds, gratis.

JAMES J. H. GREGORY,

Marblehead, Mass.

TOM THUMB PEAS.

I WILL send, for 25 cents, Six Ounces of the above Peas to any Postoffice address in the States, by mail, postage paid. This Pea grows only eight inches high, and is very early and prolific.

J. RAPALJE, *Genesee Seed Store,*

Rochester, N. Y.

Everybody should have a Copy.

Rural Annual and Horticultural Directory, FOR 1862.

PRICE ONLY TWENTY-FIVE CENTS!

THE *Rural Annual and Horticultural Directory* is a book of 120 pages, published at the beginning of each year, at the office of the *Genesee Farmer*. It is filled with matter interesting and useful to every one engaged in the culture of the soil, in town, village, country or city.

Among the contents will be found articles on the following subjects:

PLANTING FRUIT TREES;
ANNUALS AND THEIR CULTURE;
EVERLASTING FLOWERS;
MANUFACTURE OF DOMESTIC WINES;
CULTURE OF DWARF AND STANDARD PEARS;
CULTIVATION OF THE CEREALS;
ON CIDER MAKING;
AMOUNT OF ROOTS FROM CLOVER AND GRASSES;
CUTTING POTATOES FOR PLANTING;
CHINESE HOGS;
HENS AND THEIR MANAGEMENT;
CULTURE OF THE PEACH IN THE MIDDLE STATES;
COVERING GRAPE VINES IN WINTER;
TREATMENT OF MILCH COWS;
APPLICATION OF MANURE;
CULTURE OF WHITE BEANS;
THE ENGLISH MUTTON SHEEP.

With a great variety of other matters of general interest.

Price only 25 cents. It will be sent prepaid by return mail to any address. Send the money in postage stamps.

Address JOSEPH HARRIS,
Publisher of the *Genesee Farmer* and *Rural Annual*,
Rochester, N. Y.

THE *Rural Annual* has been published seven years. The seven numbers—for the years 1856, '57, '58, '59, '60, '61 and '62—will be sent, prepaid, by return mail, to any address for \$1.40.

French Imported Sugar Cane Seed by Mail.

ROBERT BUIST & SON, Seed Growers, Philadelphia, have just received, per Havre steamer, from Paris, a choice lot of
PURE CHINESE SUGAR CANE SEED.

which they offer to Farmers and Planters at the following prices:
BY EXPRESS, per lb., 40 cents.
BY MAIL, postage paid, per lb., 60 cents.

Will also receive in two weeks, by sailing vessel, a large quantity, which they will offer to the trade at low rates.

Remittances to accompany orders.
ROBERT BUIST & SON,
SEED GROWERS AND NURSERYMEN,
Philadelphia, Pa.

April—21

SCHENECTADY AGRICULTURAL WORKS, G. WESTINGHOUSE & CO., Proprietors,

MANUFACTURE Endless Chain or Railway Powers, for One, Two and Three Horses; Four and Eight Horse Lever Powers, Combined Threshers and Cleaners, Threshers and Vibrating Separators, Clover Machines with Huller and Cleaner combined—also, with Thresher, Huller and Cleaner combined; Wood Sawing Machines, both Circular and Drag; Cider Mills and Corn Shellers combined; Dog or Sheep Powers, &c.

For Descriptions and Prices of above named articles, apply for an Illustrated Circular. Address

March—31
G. WESTINGHOUSE & CO.,
Schenectady, N. Y.

WOOD CUTS FOR SALE.

WE will sell Stereotypes of the Wood Cuts used in the *Genesee Farmer* and *Rural Annual* and *Horticultural Directory*. A book containing impressions of over Seven Hundred of these cuts will be sent to those wishing to purchase on the receipt of 50 cents. The book contains an index, showing where descriptions of the cuts will be found.

Address JOSEPH HARRIS, ROCHESTER, N. Y.

28 CENTS EACH.—MICROSCOPES magnifying 500 times.
Five, of different powers, \$1. Mailed free.
Mar.—31* F. H. BOWEN, Box 220, Boston, Mass.

Marblehead Cabbage Seed.

STONE MASON CABBAGE.—I have received numerous letters from farmers residing in Canada and all the Northern, Middle and Western States, who purchased seed last season, expressing the highest satisfaction with this Cabbage—its reliability for heading, the large size of the head, the peculiar sweetness and hardness of the head, and first-rate keeping qualities. A large number took the first premiums at the Fairs of their respective counties. A number write that every plant set a handsome head; one that he sold \$50 worth from less than a seven-eighth of an acre of land. I have copied a number of these letters into my Seed Catalogue.

MARBLEHEAD MAMMOTH DRUMHEAD.—Numbers have written me of their success with this monster variety; that they raised cabbages weighing from 25 to 45 lbs.—the general wonder of the community. They have been raised weighing 62 lbs. I regret that I have but a limited supply of seed this season. I will fill orders as long as it lasts.

Stone Mason Cabbage, per ounce, 1 preparing postage, 25 cts.; per lb., \$2.67. Marblehead Mammoth, per package of about 1000 seeds, 25 cents. Hubbard Squash, per package, 12 cents.

The seed is of my own raising, and warranted of the purest quality grown.

CATALOGUES forwarded to applicants, of every variety of Garden seeds and many hundred varieties of Flower seeds.

March—31
JAMES J. H. GREGORY,
Marblehead, Mass.

Books for Farmers and Fruit Growers.

THE following works on Agriculture, Horticulture, &c., may be obtained at the Office of the *GENESSEE FARMER*:

American Florist's Guide..	75	Quimby's Mysteries of Bee-	
Bright on Grape Culture..	50	keeping Explained.....	1 00
Brown's Bird Fancier..	25	50 Rabbit Fancier.....	25 & 50
Cole's Am. Fruit Book....	50	Richardson on the Hog....	25
Dana's Muck Manual.....	1 00	Do. Domestic Fowls.....	25
Do. Prize Essay on Ma-		Do. Pests of the Farm..	25
nures	25	Do. on the Dog.....	25
Everybody's Lawyer..	\$1 & 1	25 Rural Annual and Hort.	
Every Lady her own Flower		Directory for 1861.....	25
Gardener.....	50	(First five vols. do., 1856-7-	
Farm Drainage, (H. F.		8-9 and 60, sent for	1 00
French).....	1 00	Rodgers' Scientific Agri-	
Genesee Farmer (bound		culture.....	75
volumes) each.....	1 00	Rural Poetry of the En-	
Liebig's Animal Chemistry	25	glish Language, (a beau-	
Liebig on Fertil., &c.....	25	tiful book for a present) ..	3 00
Do. Relations of Chemistry		Smith's Land-scape Gard'g	1 25
to Agriculture.....	25	Skiffill Housewife.....	25
Miner's Bee-keeper's Manual	1 00	The Rose Culturist.....	25 & 50
.....		The Horse and his Diseases	1 00
Modern Cookery, by Miss		Wilson on Flax.....	25
Acton and Mrs. S. J. Hale	1 00	Youatt on the Horse.....	1 25
Nash's Practical Horse Far-		Do. on Sheep.....	75
rier.....	50	Do. on the Hog.....	75

Any of the above named works will be forwarded by mail post-paid on receipt of the price specified.

Address JOSEPH HARRIS, Rochester, N. Y.

FOR SEWING MACHINES.

JONAS BROOK & BROTHERS'
PRIZE MEDAL SPOOL COTTON,

270 or 500 yard spools, White, Black, and Colored.

FOR MACHINES, use BROOK'S PATENT GLACE for upper thread, and BROOK'S SIX COED RED TICKET for under thread. Sold by all first class dealers in city and country; also in cases of 10 dozen each, assorted numbers, by WM. HENRY SMITH, Sole Agent, 36 Vesey street, New York. Ja—1y

Concord Grape Vines.

I WOULD give notice that I shall not be able to supply Vines for any more Vineyards till next fall, when I shall have about 31,000 more vines to sell, 70 per cent. low than others ask, and on a year's credit! I will, however, sell a few the coming spring, one year old vines, grown in the open air, at \$3 per dozen. The Concord is going up with a rush, ahead of the Delaware, and every other variety.

March—31
T. B. MINER,
Clinton, N. Y.

ITALIAN BEES.

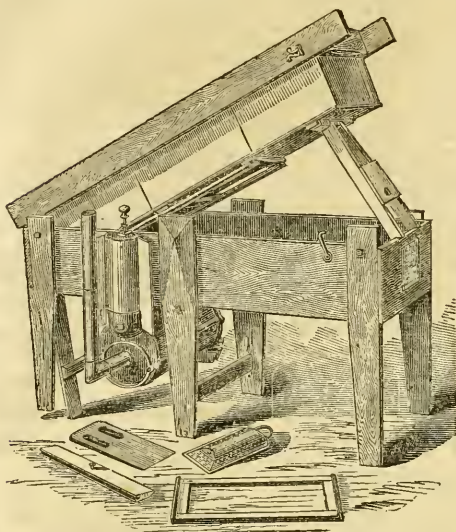
ITALIAN QUEENS of brilliant color, purity guaranteed, forwarded by express to any part of the United States. Price, \$5.00. Cash to accompany the order.

No Dark-colored Queens sent out from our Apiary.
April—41
BAKER & TAYLOR,
Hulmeville, Bucks County, Pa.

\$100 PER MONTH—Made by any one with Stencil Tools. For a circular explaining the business,

Address JOHN MILLIKEN,
May—1y
Lawrence, Mass.

ROE'S WESTERN RESERVE Patent Premium Vat,



With Improved Heater and Valves.

THIS well known CHEESE VAT was first introduced to the Dairy men more than seven years ago. Several thousand have since been sold throughout the country—more than one thousand the past season. Numerous and valuable improvements have been added from time to time, to embrace everything wanted in a Cheese Vat, and we believe it now is the most complete, simple, durable and convenient Cheese-making Apparatus in the world. Our long experience enables us to warrant our Vat to give entire satisfaction. By getting one of these Vats, a single Dairyman in any part of the country will have as complete an Apparatus as is used in the largest dairying localities. The Cut shows the back side of the Vat when opened, after using; the tube on the end of the heater is for the escape of steam; the knob at the top operates the valve.

Roe's Patent Adjustable Expansion Cheese Hoop.

A very nice thing. One hoop makes three sizes, and expands to lift off the cheese.

Send for a Circular, to

ROE & BLAIR,
Madison, Lake Co., Ohio.

ROOTS FOR FEEDING STOCK.

1,000 lbs. LONG RED MANGEL WURZEL BEET.

1,500 lbs. WHITE SUGAR BEET.

500 lbs. LONG ORANGE CARROT.

5,000 lbs. PURPLE TOP YELLOW RUTA BAGA.

10,000 lbs. RED TOP "STRAP-LEAVED" TURNIP.

The Beets are Imported French; Carrots and Turnips of our own growth—all of which are WARRANTED first quality.

Forwarded by Express at 40, 50, 75, 40 and 40 cents per lb.

Forwarded by Mail, "postage paid," at 60, 50, 95, 60 and 60 cents per lb.

Wholesale quantities at greatly reduced rates. Remittances to accompany all orders.

ROBERT BUIST & SON,
SEED GROWERS AND NURSERYMEN,
Philadelphia, Pa.

April—24

ITALIAN QUEEN BEES.

I SHALL continue to breed this season from my well known stock of Italian Bees, imported in March, 1861, by steamer New York. I guarantee the perfect purity of my Queens, being in possession of the

Only Six Live Original Italian Queens

in the United States.

To suit the times, I have reduced my price to \$7 50 for a Queen and a few hundred workers. For particulars apply to

C. WM. ROSE,
April—31 63 Exchange Place, New York.

SEEDS! GARDEN SEEDS!

FROM HALLOCK'S SEED AND AGRICULTURAL WAREHOUSE.—The subscriber will forward by mail, postage paid to any address in the United States, a package of twenty sixpenny papers, well filled with good and reliable vegetable seeds, of good varieties to supply the garden, on receipt of \$1 by mail. A part Flower seeds will be substituted if desired. Send on your orders. If you wish any particular varieties, name them and they will be substituted if they are to be had in this market.

SEEDS TO CANADA.

As there is some difficulty in sending seeds to Canada by mail, I will send them by Express, and will add *Ten extra* packages (making *Thirty* packages for one dollar) to pay express charges on all orders received from Canada. If two or three parties would order their seeds together, they would in this way get them at exceedingly low rates. Address

E. D. HALLOCK, Agr.,
No. 31 Exchange street, Rochester, N. Y.

WM. PATERSON'S

Improved Superphosphate of Lime, MANUFACTURED and for sale at Division Street Wharf, Newark, N. J., and by the manufacturer's agents in this and other States.

CIRCULARS, with particular instructions for use, will be sent by mail when requested, or on application to his agents.

WM. PATERSON,

The oldest manufacturer of Superphosphate of Lime in the Union. April—31

RHODE'S SUPERPHOSPHATE, The Standard Manure,

ENDORSED by Prof. S. W. Johnson, G. A. Liebig and Dr. Evan Pugh. Sold under a Legal Guarantee of purity and freedom from all adulteration. H. E. MORING, GENERAL AGENT, 97 Pearl street, near Hanover Square, New York, to whom agriculturists and dealers of New York and New England will apply.

B. M. RHODES & CO.,
Office, 52 South street, Baltimore.

NANSEMOND SWEET POTATOES.

NORTHERN Farmers can grow no more profitable crop near cities. Plants from 1st May till July. Price, 400, \$1; 1,000 \$2; 5,000, \$9; 10,000, \$15. Packed and guaranteed to carry in good condition throughout the country.

Directions for Cultivation and Preservation sent gratis. Send for one. Address

M. M. MURRAY,
April—21 Loveland, Clermont Co., Ohio.

FOR SALE—By the subscriber, a MORGAN BLACK HAWK STALLION, sired by Black Hawk, Jr., is five years old, and stands fifteen and a half hands high. Is a beautiful mahogany bay, with black legs, mane and tail. Weighs about 1100 lbs. when in good condition. Is compactly built, possessing remarkable energy and muscular powers, having a strong, vigorous constitution. Has an easy, open gait, and bids fair to make a fast traveler. JACOB HOUSTATER,
Pekin, Niagara Co., N. Y.

BEAN PLANTER—Patented 1860.

WE manufacture the cheapest and best Bean Planter in use. Worked by one Horse. Plants two rows at a time, and in hills. Rows from 28 to 30 inches apart, and hills 14 inches apart. Price \$12. WHITESIDE, BARNETT & CO.,
April—21 Brockport, Monroe Co., N. Y.

DWARF BROOM CORN SEED.

A NEW variety, which seldom grows more than four feet high, and produces a greater weight of corn and of superior quality to the ordinary kind, is now offered for sale for the first time by

ROGERS & GEST,
No. 133 Market St., Philadelphia, Pa.

A NEW GOOSEBERRY AND NEW RASPBERRY.

NATIVES of the Great West. The Gooseberry is smooth, prolific, larger than Houghton, of fine flavor, and free from mildew. The Raspberry is a Black Cap, better than Doolittle's Improved. Circulars on application.

April—21 HIEFFRON & BEST, Utica, N. Y.

ELECTRIC WEATHER INDICATOR.

THE original and only genuine Instrument of the kind—foretells the approach of storms 24 hours in advance. Agents will find for this article a ready and profitable market everywhere. Samples mailed for 50 cents by LEE & CO., Newark, N. J.

50 HONOLULU NECTARINE SQUASH SEEDS—Free, 9 cents; Giant Emperor and Truffaut's Penflowered Asters, mixed, 9 cents; Zin-la Elegans, 9 cents. All the above free for 24 cents. P. SUTTON, Ransom, Luzerne Co., Pa. *



CULTIVATION OF ROOT CROPS.

THE general introduction of any new system of agriculture is proverbially slow. We were once on an English farm where seventy-five acres of turnips were grown every year, and the farmer mentioned, as a curious fact, that in the lease of the former occupier there was a clause compelling him to sow *twelve* acres of turnips every year, and *he considered a great hardship*. Certain it is that he would not have grown so many had it not been one of the conditions of the lease. Now one-fourth of the entire arable portion of the farm is occupied with turnips and ruta bagas.

In looking over the back numbers of the *Genesee Farmer* for the last thirty years, we have been struck with the urgent advocacy of root culture. The same is true of the *Albany Cultivator*. The advantages of root crops have been repeatedly pointed out, and yet to-day how few grow even roots enough to give their sheep and cows a taste during winter and early spring months!

From twenty to twenty-four years ago, the cultivation of roots was more warmly advocated by American agricultural writers than at the present time. The lamented Judge BUEL especially spoke frequently in their praise, and through the pages of the *Cultivator* did more than any other man to draw the attention of farmers to the subject. He did not, however, confine himself merely to advocating the culture of root crops, but demonstrated practically on his own farm that turnips could be successfully raised in this country. Others were inclined to do the same thing, and one can not but be struck with the interest that seems to have been taken on the subject.

Why has this interest abated? We do not say that fewer roots are raised now than formerly, but certainly farmers are less enthusiastic in their rise.

Perhaps they expected too much. Like many other new things, it is not improbable that turnips

were lauded too highly, and that those who tried them failed to realize their extravagant expectations. Root crops require extra cultivation. An English farmer expends more money and labor on his turnips and ruta bagas than on any other crop in the rotation. At the same time he finds that it is not *directly* profitable. He feeds them out on his farm, and the profits from his cattle and sheep when fed on these crops are not more than the cost of raising the turnips. In fact, as a general rule, we believe there is a loss rather than a profit. *But the manure is valuable*. This is the source of his profits from root culture. Taking into consideration the value of the manure and the effect of their growth and culture on the soil, the cultivation of turnips proves very beneficial. In fact, the turnip has been very justly termed "the sheet-anchor of British agriculture."

A good English farmer once said to the writer, "Insure me a crop of turnips, and I will insure you every other crop in the rotation." The rotation is, first, turnips; second, barley, seeded with clover; third, clover; fourth, wheat; and then turnips again, and so on. A good crop of turnips, eaten on the land by sheep, means good barley and good clover. Good clover means good wheat. The turnips and the clover may not yield much profit, but the extra yield of barley and wheat more than compensates for the great labor and expense bestowed on the turnip crop.

There is felt at this time a renewed interest in the culture of roots in this country and in Canada West. We are anxious that the *true value* of the turnip family should be known—that the source of its profits should be definitely understood. We are satisfied that root culture may be extended with advantage, but the *immediate* profits will not be large. Among the advantages of root culture may be named—

- 1st. The thorough preparation required, and the use of the horse-hoe between the rows cleans, mellow and enriches the soil.

2d. The growth of turnips and their consumption on the farm furnishes much valuable manure, and thus serves to enrich the soil for subsequent crops.

3d. A large quantity of healthy and succulent food is obtained for the use of sheep and cattle during the winter and early spring months, when such food is much needed.

The drawbacks to root culture in this country are—

1st. Our dry, hot climate is not as favorable to their growth as the moist climate of Great Britain.

2d. We are obliged to put them in cellars or in pits to preserve them through our severe winters.

The first objection is, in our mind, not so serious as the second. Good crops *can* be raised in this climate. In Canada West, where much more attention is paid to root culture than with us, as heavy crops of ruta bagas are sometimes raised as in England, and their culture is rapidly increasing. The secret of their success is not any superiority in the climate, but in the thorough preparation of the ground and the subsequent cultivation. They generally plow the land in the fall and again in the spring, with repeated harrowings, till the ground is clean and mellow. Then throw the land into ridges 2½ feet apart, and put a good dressing of well rotted manure in the ridges, and cover by splitting the ridges with a double mould-board plow. Then drill in the seed on the ridges with a drill, having a light roller before and after the seed drill. They sow usually about the middle of June. Sow from one to two lbs. of seed per acre. When the plants are coming into the rough leaf, thin out with the hoe from ten to twelve inches apart, and use the horse-hoe frequently between the rows.

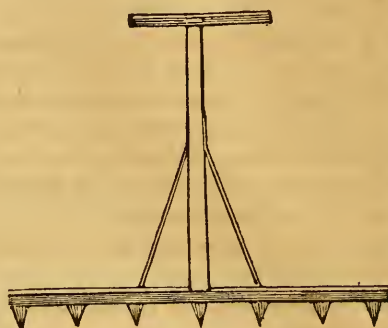
To sow ruta bagas (Swedes) broadcast is a bootless task.

Mangel wurzels are better adapted, we think, to our climate than Swede turnips, and more nutritious. They require very rich soil and good culture, and then large crops can be obtained. They keep well into spring, and are excellent food for milk cows or the ewes with lambs in the spring. They deserve more attention than they have yet received. Prepare the land as for Swedes, and sow about the first of June. Thin out by hand and with the hoe to from twelve to fifteen inches apart. More nutritive matter can be obtained from an acre of mangel wurzels [The name means "scarcity root"] than from any other root crop. But it must have very rich soil, or extra manuring.

The culture of beets is similar to that of mangel

wurzels. If raised for sugar, they should be sown on warm, dry land, thoroughly pulverized, and *not too rich*. Small beets contain the largest percentage of sugar. They need not be left more than eight inches apart in the rows. It is better *earth them up* as they grow, so as to keep all the root under ground.

In Ireland, a dibble is used for making the holes into which the mangel wurzel or beet seeds are dropped. The accompanying figure will render description unnecessary. Any farmer can make one for himself.



A DIBBLE.

The common white turnip is not as nutritive as the Swede or ruta бага. It will not keep so well through the winter. The English farmers sow them principally to eat off on the land from October to December. It will hardly pay to house them. We think they may be raised in this country on light sandy soils, for the same object, with advantage. They require far less cultivation than the ruta бага. They may be sown broadcast any time in July.

HOLLOW HORN IN CATTLE.—Much has been said and written upon the subject of hollow-horn or horn-distemper; and some persons seem to be constituted, with such tender feelings and pious morals, that they admonish, if not rebuke, any person who has the temerity (?) to use the easy means of preventing the hollow-horn by cutting off a small piece of the animal's tail once or twice a year. Surely such persons are changeable-minded or if they raise any cattle of the male kind, they are fully supplied with uncastrated animals. I have raised some cattle, and it is my rule to cut off a small piece of the tail of all my cattle in the spring of the year, just before they go out to pasture, and if at any time during the summer I discover the brush of the tail being curled, or loose and twisted, I forthwith cut off half an inch (more or less) of the tail—being careful to cut as little as the hair brush as possible. I have never known an animal to have the horn-ail that was treated in the above described manner.—BELA DUNBAR, North Chili, N. Y.

THE VALUE OF POUDRETTE.

A CORRESPONDENT of the *American Agriculturist* says: "It has been estimated that a single individual produces 500 lbs of urine per annum, which Prof. JOHNSTON shows is worth \$50 per ton. A village of 1,000 inhabitants would consequently produce 250 tons in a year, which would be worth, at this rate, more than \$10,000. The population of New York and Brooklyn would furnish annually for country farms \$10,000,000 worth of this fertilizing material, if it could be saved for that purpose."

Of all the wild estimates we have seen of the value of nightsoil, this is the wildest. It has been ascertained by actual experiments, that on an average males from 15 to 50 years of age void in the course of a year, feces, 95 lbs.; liquid, 1,049 lbs. Total, liquid and solid excrement in their fresh state, 1,144 lbs. These contain:

Of *dry substance*—feces, $23\frac{3}{4}$ lbs.; urine, $39\frac{1}{2}$ lbs. Total, $63\frac{1}{4}$ lbs.

Of *mineral matter*—feces, $2\frac{1}{2}$ lbs.; urine, 12 lbs. Total, $14\frac{1}{2}$ lbs.

Of *carbon*—feces, 10 lbs.; urine, 12 lbs. Total, 22 lbs.

Of *nitrogen*—feces, 11.5 lbs.; urine, 10.45 lbs. Total, 21.95 lbs.

Of *phosphates*—feces, $1\frac{1}{2}$ lbs.; urine, $4\frac{1}{4}$ lbs. Total, $5\frac{3}{4}$ lbs.

In other words, fresh urine contains 96 per cent. of water. One ton contains only 80 lbs. of solid matter. What is this 80 lbs. worth? We all know what the 1,920 lbs. of water is worth. The two together, according to the above estimate, is worth \$50. Now, if the water is worth nothing, it follows that the 80 lbs of dry matter in a ton of urine must be worth \$50, or over 60 cents per lb. Is there not some error here? Has not the writer of the *Agriculturist* misunderstood Prof. JOHNSTON? Did not Prof. J. mean that the *dry matter* of urine was worth, if you could get it, \$50 per ton? He certainly could not mean that the fresh urine was worth \$50 per ton.

Let us see what a ton of fresh urine contains, and then we can tell to a certainty what it is worth—or at least we can tell what the ingredients which it contains can be purchased for in other forms.

One ton of fresh urine contains about 20 lbs. of nitrogen, worth 17 cents per lb., or \$3.40; 10 lbs. of phosphates, worth 6 cents per lb., or \$0.60; 25 lbs. of mineral matter, worth, on a liberal estimate, 50 cents; 25 lbs. carbonaceous matter, worth

very little indeed, say 50 cents; and 1,920 lbs. of water, worth *nothing*. So, then, one ton of fresh urine, instead of being worth \$50, is worth only \$5, and this is a very liberal estimate.

IRRIGATING MEADOWS.

THERE are few subjects which merit the attention of American farmers more than that of irrigation. In many parts of New England, and in the grazing and dairy districts of this State and Pennsylvania, there are thousands of acres of land that might be irrigated in the simplest, easiest and most economical manner possible. We have often been surprised to see small streams of water running to waste while the parched and poverty stricken meadows in the neighborhood, which might easily have been irrigated by this water, produced not more than a ton of hay per acre, and often much less.

In irrigating, as in underdraining, it is frequently necessary for a few neighbors to combine in the work. And this is not always an easy matter to accomplish. In fact, this is one of the greatest difficulties in the way of any plan for the introduction of irrigation. We have no remedy to propose which will overcome this hindrance. All that we can do is to call attention to the great advantages which irrigation would afford in some sections, and endeavor to show that such combinations as we have alluded to would be mutually beneficial.

That irrigation is a great means of increasing the produce of grass lands, will not be disputed. In England we have known many instances where at least three times the amount of hay has been obtained simply by irrigation, with ordinary water, from a small stream that was dammed up and the water conducted in furrows and allowed to flow over the land.

In the last number of the "Journal of the Royal Agricultural Society of England," it is stated that the spring feed alone on the irrigated meadows on the Avon is sometimes let for \$40 or \$50 per acre, and even \$60.

LEVI BARTLETT, in describing the farm of Mr. SANBORN, of New Hampshire, in a recent number of the *Albany Cultivator*, says Mr. S. commenced irrigating his "old mowing fields" about twelve years ago. At that time many of them yielded very scanty crops of grass, not over ten or fifteen cwt. per acre. Now, by the application of water alone, these fields yield two tons of first-rate qual-

ity hay per acre, and those which have been irrigated longest yield the heaviest crops.

BOUSSINGAULT, the well known French chemist and farmer, considers a good meadow the cheapest means of enriching the farm; and this is undoubtedly true. The extra produce obtained by irrigating grass lands, when fed out to animals, furnishes an extra quantity of manure for the use of the arable upland portions of the farm.

STEEPING BARLEY FOR SHEEP.

In the *Genesee Farmer* for December, 1861, page 365, we stated that in Mr. LAWES' experiments on sheep, "*considerable advantage was found from steeping grain from 24 to 36 hours in cold water, before giving it to the sheep.*"

A correspondent of the *Country Gentleman* makes the following remarks on the subject:

CREDIT SOMETIMES WRONGLY GIVEN.—MESSRS. L. TUCKER & SON:—In *Country Gentleman*, vol. 18, No. 23, p. 364, I find an article taken from the *Genesee Farmer*, wherein the author, Mr. LAWES, gives the result of feeding a lot of sheep.

"Four sheep in ten weeks eat 280 lbs. of crushed barley, and gained 81 lbs. Four sheep in an adjoining pen eat in ten weeks 280 lbs. of crushed barley steeped in water, and gained 101½ lbs. This shows a gain of over 20 lbs. in favor of simply steeping in cold water. We must add that the sheep were allowed all the mangel wurzel they would eat, and the pen having the steeped barley consumed much more than the pen having it dry. The former in ten weeks eat 3,321 lbs., while the latter eat only 3,867 lbs. of these roots."

Mr. LAWES in his article, if I understand him, attributes the 20 lbs. gain in one lot of sheep over the other to the steeping of their food in cold water, but to my mind the chances are that the gain was produced by their eating 1,454 lbs. more mangel wurzels than the sheep did that eat their barley dry.

Had Mr. L. given each lot of sheep an equal number of pounds of mangel wurzels, and there had been a gain of 20½ lbs. in favor of the sheep that eat the steeped barley, he might, I think, have more justly attributed it to the steeping of their food.

G. P. SERVISS.

Mr. SERVISS' remarks are to the point. We did not, however, *wholly* "attribute the 20 lbs. gain in the one lot of sheep over the other to the steeping of the food in cold water." In fact, we distinctly stated that the one lot of sheep eat more mangel wurzels than the other. The only conclusions we drew from the experiment are those given in the above extract put in italics, viz., that there was "*considerable advantage*" from steeping the grain. We did not say that the increase was due merely to the steeping of the barley.

The fact is an interesting one, and as such it was mentioned. The only difference in the two

lots of sheep was that one eat dry barley, and the other the same amount steeped in cold water. Both had what roots they choose to eat. Those having the steeped barley had a better appetite than the others, eat more roots, and laid on fat more rapidly.

IMPROVING OLD PASTURES.

At a recent agricultural meeting in Cheshire, Eng., RICHARD DUTTON read a paper on the "Agriculture of Cheshire," in which he remarked:

An old pasture-field, rich in good herbage, *should never be brought under the plow*, on a dairy or grazing farm, without an urgent necessity. On our best dry soils, old pastures are apt to become rough, and, in some cases, covered with moss. This may be prevented, to a great extent, by a top-dressing of salt during the winter, at the rate of 10 cwt. per acre; or, in some cases, a good dressing of lime, at the same time freely harrowing the surface; or, what is less expensive, stocking them with sheep during the winter months, at the same time feeding them with turnips or corn. In a very productive summer, or when a farmer has been unfortunate with his stock, he may, with advantage, mow such parts of his pastures as can be spared for the purpose. It is superfluous for me to say that on a very large proportion of our grass lands draining and bone-dusting are the great means of improvement. A question of some importance may be asked: "Are all our clay soils improved by draining for mowing and pasture purposes?" *I think not*. When there is nothing in the herbage produced which indicates the presence of too much water, I think draining will add nothing to the fertility of such soils so long as they are in grass.

CABBAGE FOR COWS.—There can be no doubt that cabbage is an excellent food for cows. It is more nutritious than the white turnip, and will produce more per acre. We think it should be more extensively cultivated, especially by our dairymen. The investigations of Dr. VOELCKER show that in the fall of the year milk, when the cows are well fed, yields more cheese and butter than during the summer. But if the cows have not a good supply of nutritious food, the milk falls off greatly. It would seem, therefore, that a supply of cabbage, which could easily be obtained, would prove of great advantage.

HAY FOR COLTS IN SUMMER.—When colts are turned into young, succulent grass in summer, they not unfrequently scour. This can be avoided by giving them a little hay and an occasional feed of grain. The same is true of other stock. It is a well known saying, that "sheep prefer roast meat to boiled." It is a matter of surprise sometimes how well sheep thrive in a dry summer, even in comparatively bare pastures.

"PEDIGREE" WHEAT.

THE word "pedigree" has hitherto been applied only to animals, and it can not, in strict propriety, be applied to members of the vegetable kingdom. But we have now a wheat that is "thoroughbred"—one that has a "pedigree," and the use of these terms can no longer be confined to animals.

In the *Genesee Farmer* for October, 1861, p. 297, we alluded to the astonishing results that had been obtained by Mr. F. F. HALLETT, of Brighton, England, by carefully "breeding" his seed wheat.

In the last number of the "Journal of the Royal Agricultural Society," Mr. HALLETT gives a detailed account of his system of "breeding" wheat, and its results. In the whole range of agricultural science we know of no subject of greater importance, and we are sure the intelligent readers of the *Genesee Farmer* will peruse with the greatest interest some account of Mr. HALLETT's experiments.

Mr. H. says it has been his conviction for the past twelve years that a good *pedigree* is as valuable in plants as in animals, and that in the careful rearing of seed which has this qualification lies our only means of materially increasing the produce of the cereals. Amongst animals, whether horses, cattle, sheep, or pigs, the importance of "pedigree" is fully recognized, as also even in reference to some of our agricultural *plants*; for if a farmer wants a good cabbage, mangel wurzel, turnip, or carrot, he selects the seed from a good *parent*, but the moment he deals with the cereals he almost ignores the great principle of like producing like, which he admits, in the foregoing cases, to be not only a right one, but so important as to deserve much attention, and repay much outlay. Yet Mr. H. has proved that the minutest characteristics of a plant of wheat will be reproduced in its descendants; so much so, that we can not only perpetuate the advantages presented to us in an individual ear, but, by the accumulation of selection, make further advances in any desired direction; the union of good qualities imparting a cumulative force, and their successive renewals and establishment conferring, as in animals, a "fixity of type."

The plan of selection pursued by Mr. H. was as follows. He says:

A grain produces a "stool," consisting of many ears. I plant the grains from these ears in such a manner that each ear occupies a row by itself, each of its grains occupying a hole in this row; the holes being 12 inches apart every way. At harvest, after the most careful study and comparison of the stools from all these grains, I select the finest one, which I accept as a proof that its parent grain was the best of all, under the peculiar cir-

cumstances of that season. This process is repeated annually, starting every year with the *proved* best grain, although the verification of this superiority is not obtained until the following harvest.

During these investigations, no single circumstance has struck me as more forcibly illustrating the necessity for repeated selections than the fact, that of the grains in the same ear one is found greatly to excel all the others in vital power.

In illustration of these principles of selection, Mr. H. gives the following results, due to their influence alone,—as the kind of seed, the land, and the system of culture employed were precisely the same for every plant for four successive years; neither was any manure used, nor any artificial means of fostering the plants resorted to.

Table showing the Importance of each additional Generation of Selection.

Year.		Length.	Contain- ing	Number of Ears on fluest stool
1857	Original ear.....	4 $\frac{1}{2}$ in.	47 gr.	..
1858	Finest ear.....	6 $\frac{1}{2}$ "	79	10
1859	Finest ear.....	7 $\frac{1}{2}$ "	91	22
1861	Ears imperfect-wet season	..	..	39
1861	Finest ear.....	8 $\frac{1}{2}$ "	123	52

Thus, by means of repeated selection *alone*, the length of the ears has been doubled, their *contents* nearly trebled, and the "tillering" power of the seed increased five-fold.

In commencing his experiments, Mr. H. selected ears in reference to their *quality*, rather than size. In 1857, he selected two ears of wheat from a field of red "Nursery wheat" of the first quality. These two ears contained together 87 grains. These 87 grains were planted one foot apart each way. One grain of these 87 produced 10 ears containing each 55, 60, 66, 68, 68, 69, 73, 74, 76 and 79 grains; or 688 grains from one grain sown. The finest 10 ears that could be selected from the *whole* produce of the other 86 grains contained only 598 grains.

This was the harvest of 1858.

In the fall of 1858 the 79 kernels from the best ear were planted one foot apart. One of these grains produced *seventeen* ears (besides five green ones), containing 55, 58, 61, 63, 63, 64, 65, 66, 67, 67, 72, 74, 75, 76, 86, 87 and 91 grains; or a total of 1,190 grains from one.

This was the harvest of 1859.

The 91 grains from the best ear were planted in the fall of 1859. The one that tillered the most produced *thirty-nine* ears, containing 2, 45 grains.

This was the harvest of 1860, which, it will be recollected, was one of the wettest known in England for many years. The crop was so beaten about and injured by the rain that only two ears



ONE OF THE ORIGINAL TWO EARS.



AFTER TWO YEARS REPEATED SELECTION.

on this stool were perfect. These contained respectively 71 and 74 grains each.

The 74 grains of the largest ear were planted in the fall of 1860, and one of them produced *fifty-two* ears. The best one of which was $8\frac{3}{4}$ inches long and contained 123 kernels.

This was the harvest of 1861.

As to the yield per acre, Mr. H. says: "The pedigree wheat planted singly, Sept. 9, 1859, in holes 9 inches apart every way, produced in 1860, notwithstanding the very disastrous character of the season, $1\frac{3}{4}$ bushels on 698 square feet on unmanured land, or 108 bushels per acre!

Up to this time Mr. H. had not sufficient pedigree wheat to test it on a large scale, and the fall of 1860 was so wet that he could not sow till the last of October—fully six weeks too late for the quantity of seed sown, which was only one peck per acre. Nevertheless, on a field of ten acres, which Mr. H. says "was the worst wheat-field on my farm," he obtained 57 bushels of wheat per acre. Under the circumstances, this is undoubtedly a large yield, and plainly shows that under favorable conditions an immense crop may be raised.

We shall look with great interest to the results of this year's harvest.

We annex a cut of one of the two original ears, and one of the best ear produced in 1859, after two years "breeding." The Journal contains a cut of the best ear obtained in 1861, after four years repeated selection, but it is too long for our columns. It was $8\frac{3}{4}$ inches long and contained 123 grains, and there were 52 ears on the stool!

BEANS—BEANS—WHO KNOWS 'EM.

EDS. GENESEE FARMER:—Most likely you have little room in the *Genesee Farmer* for letters more merry than wise, but your correspondent claims to be p-q-liar in this, that his mind is made as easy whether his letters be printed or not.

Now, beans are a very nice crop to raise, very pretty to look at, and very good for the soil, no doubt, especially if rather heavy, and if you feed out your crop on the farm. But there are doubts in your correspondent's mind as to the profit, if grown for sale, and, if the white bean be planted, as to the feedin' on 'em out.

As to the profit, I have no data as to what is a fair crop, but assume (subject to correction) that forty bushels per acre would be very satisfactory, and, at two dollars per bushel, quite profitable, but for robbing the farm of a large amount of nitrogen. Some years ago, beans sold at \$2 and upward, and the price is now high again; but for two or three years back it has been as low as 75 cents, and at that price I think it would not pay to grow them for sale. Again, the culture of beans in small and occasionally in large quantities has been universa.

in the part of the country where I live since its settlement, and is now almost abandoned, except that they are still grown in patches for family use. Why? I can only suppose because corn and potatoes were found more profitable.

Then, as to feeding out white beans. Can you do it? Mind, I don't say you can not; but can you? When beans were beans, a few years ago, I got tired of paying sixteen and eighteen shillings a bushel for them, and determined to assert my independence. So I planted an acre or so (paid eighteen shillings a bushel for the seed), and had a very nice crop, cured it well, threshed them and put them in the granary. Now, thought I, I've beans enough for many years,—bean soup, boiled beans, baked beans, pork and beans—and I shall get back some of the money I have paid for beans. Well, one day along comes a general produce buyer, happens to see my bin of beans, and blandly suggests that they are really very nice beans, and he will take 'em at 75 cents. "Seventy-five cents!" says I, "no, you don't. Corn is worth a dollar, and oats five shillings, and I'll feed 'em first." So I began to offer them to the "kettrypids." I suppose they'd have eaten them at eighteen shillings, but at six shillings it was no go. Not a "kettrypid" but turned up his nose at them. We boiled them, we ground them, we baked them, we made soup of them, we offered them in every way except the very agreeable combination with pork, but it was no use. I had no "alligator" pigs, so the experiment was hardly as complete as could be wished. But I was (dis)satisfied. I had beans for many years, sure enough, and they were, I will say, just as good at four years old as when new. I used up the last just before the price went up again.

Now, I do not say beans are a humbug, and I call you to witness, Messrs. Editors, that I didn't say that 1,200 bushels of carrots per acre were a humbug. (On the contrary, I consider the latter a highly satisfactory—when accomplished, as it sometimes is—fact.) But I should like the privilege of drawing on you at sight for a bushel (or say half a bushel) of English field beans—horse beans—to experiment upon, if you will have it I shall plant beans. I am told that Mr. WAINWRIGHT, of Rhinebeck, grows the English horse bean with good success, but he has gone to the wars—worse luck for his brother farmers, except for those who went with him.

P. Q.

REMARKS.—Our esteemed correspondent is one of the best breeders in the State, and his "kettrypids" have frequently taken prizes at the Fairs. Perhaps they are puffed up with pride and good living, and turn up their noses at plain, wholesome food! Be this as it may, we have abundant evidence that cattle and sheep will eat American white beans and do well on them.

One other point in our correspondent's letter must be alluded to briefly. *Selling* the beans may and does "rob the farm of a large amount of nitrogen." That is to say, the beans *contain* a high per centage (from 4 to 5 per cent.) of this impor-

tant element, and if the beans are sold, the farm loses just so much of this essence of manure. But on the other hand, it does not follow that the *growth* and sale of beans robs the land of more nitrogen than the growth and sale of corn. The beans contain twice as much nitrogen as corn, and it is believed they derive this nitrogen from the atmosphere, while corn does not. Or, to speak more correctly, it is thought that corn during its growth takes up nitrogen from the soil and *dissipates it through its leaves into the atmosphere*. In other words, it *wastes* ammonia or nitrogen during its growth. Wheat, barley, oats and other cereals are supposed to do the same, while beans, peas, and other leguminous plants *do not waste* ammonia or nitrogen during their growth. It is on this fact, which we have again and again stated, that we base our urgent advocacy of the culture of beans, peas and clover. They enrich the land, while the cereals have a tendency to impoverish it, especially of nitrogen.

EDS.

BORROWING TOOLS.

PROBABLY there is no practice that a farmer can pursue that is more reprehensible than that of borrowing farm implements, when he could have them of his own without the least inconvenience. In some particular instances it is proper to borrow—when an implement is broken, or in some emergency where the want of a certain implement could not be foreseen.

My system through life has been to purchase every tool that I had occasion to use, if I had to send ten miles to obtain it, rather than trouble my neighbors. I keep an excess of hoes, shovels, spades, etc., on hand, so that in any emergency I can profitably employ any addition to my hired help.

Some farmers, I suppose, do not own a crowbar, others have but one spade, one shovel, one nail hammer, one handsaw, and that not worth picking up in the road. This is all bad management. You should own every tool or implement that is needed on your premises, and several of those that very often you require to place in the hands of a hired man or two.

You do not know what a bad name you get, by running to your neighbors as often as once a week to borrow something, while you own nothing fit to lend yourselves.

T. B. MINER.

Clinton, N. Y.

SUGAR BEETS.—The red mangel wurzel, or sugar beet, is an excellent root crop for cows and cattle of all kinds. Sow early this month in drills 18 in. apart, and leave the beets about 8 inches apart in the rows. A much larger crop can be grown of this root than of carrots, and the cultivation is less expensive, as the crop may be easily pulled in the fall by small boys, while gathering carrots is much more labor.—T. B. M.

SPIRIT OF THE AGRICULTURAL PRESS.

CHEESE PER COW.—A correspondent of the *Country Gentleman* states that his dairy of 24 cows averaged, last year, 650 lbs of cheese per cow.

DEPTH OF GRASS ROOTS.—In reply to an inquiry as to how deep grass roots will penetrate, the editor of the *Irish Farmer's Gazette* says "some have been found at a depth of twelve or fourteen feet."

PLANT BEANS.—The *Maine Farmer* seconds our advice to raise beans and adds: "We know of instances where corn and beans mixed and ground have been fed to milch cows with the very best results. Sheep too, can consume them with profit."

LAMBS KILLED BY SWALLOWING WOOL.—A correspondent of the *Irish Farmers' Gazette* says he has lost quite a number of lambs this spring from their eating small particles of wool. He finds the wool in the stomach and bowels with the milk curdled round it.

SHEEP EATING EACH OTHERS WOOL.—A correspondent of the *Country Gentleman* has two flocks of sheep, in one of which the sheep have the habit of eating each others wool to such an extent that they will soon "strip one another naked." The other flock is free from the unfortunate and perplexing habit. He wants to know the cause and cure.

BUCKWHEAT.—A correspondent of the *Country Gentleman* in Clinton, N. Y., says he has a field of ten acres, a part of which has been sown *annually* with buckwheat for the last *thirty years* without manure, and the other part nearly as long. It averages from 25 to 30 bushels per acre. He uses the buckwheat principally for feeding milch cows, three parts buckwheat meal and one part corn meal.

A correspondent of the *Maine Farmer* says a cow belonging to Mr. E. RAMSDALL, of Canaan, dropped a calf this spring that weighed, when four hours old, 121 lbs. Its girth was two feet nine inches, length three feet five inches, and stood two feet eight inches high. The same paper states that Mr. J. O. PAYNE, of China, has a cow which dropped a calf this spring weighing 136 lbs., and girted three feet.

WASHING SHEEP.—The *Boston Cultivator* thinks that so long as the rules which generally govern purchasers prevail the practice of washing sheep will be less followed than it has hitherto been. One reason assigned for this is that the sheep can be shorn earlier. More wool is obtained from shearing early in May, whereas the water is frequently too cold to wash the sheep with safety till the last of May or the first of June.

SOAKING SEED CORN.—A correspondent of the *Boston Cultivator* says that Mr. COBB, of Newton, Mass., has for two years past soaked his seed corn in a solution of chloride of lime and copperas, in equal parts. He thinks a pound of each enough for twenty acres, though if the solution is stronger it will do no harm. He uses hot water enough to cover the seed when soaked, and lets it soak twenty-four hours. Last year Mr. C. planted half an acre of corn with seed thus prepared, on the 16th of June, where the birds had destroyed the first planting.

The corn on the fourth day was an inch above ground, and on the fifth day it had three leaves. It assumed a dark green color and grew rapidly, so that at harvest it was only three days later than that of the first planting. When seed is so prepared the birds disturb it but little.

BEES AND ASHES.—L. A. JENKINS says, in the *Wisconsin Farmer*, that bees dislike ashes so much that they will leave their hive when it is placed near an ash heap.

UNRULY CATTLE.—We find the following in the *New York Methodist*:—"An ox or cow that is accustomed to throwing fences, may be prevented doing so by taking a large wire and bending it in the shape of a bow; then bend the points in the shape of a fish-hook; tie two strings to the wire, place the hooks in the nostrils lightly, and tie one string to the point of each horn. This will prevent the most unruly ox or cow from throwing fences."

TRANSPORTING BEES.—A correspondent of the *N. E. Farmer* gives the following directions for transporting bees:—"Spread down a sheet and set the hive on it; then bring up the corners and tie over the top, or invert the hive, and put over the bottom a piece of muslin eighteen inches square, fastened at the corners with carpet tacks. A wagon with elliptic springs is best for conveying them. In all cases, the common box hive should be bottom up, to avoid breaking combs. When moved late in the season, they should be set several feet apart."

HOW TO RAISE PUMPKINS.—T. S. COLTON, of Wisconsin, writes the *Farmer* how he raises pumpkins. He says:—"Take the poorest land in the corn-field; plow deep; mark 12 feet each way; dig holes 1½ feet deep; fill with well-rotted manure; cover with earth 12 inches; then plant. When they begin to run, thin out, so that but two or three remain in a hill. The 25th of May is early enough to plant. One acre cultivated in this way will produce more than ten acres with corn. Last season I had 31 pumpkins from one sprout—averaging 20 lbs. each, or 620 lbs. from the vine!"

A CROSS BETWEEN THE SOUTH DOWN AND LONG WOOLS.—A correspondent of the *Maine Farmer* says it is "universally known that he prefers a cross between an improved South Down ram and a large long woolled sheep. He had 40 such ewes last fall, and now (April 21,) thirty of them have 40 lambs by their side, and ten more to lamb. One pair of twins weighed, when dropped, 18 lbs; and a single one, dropped the day he wrote, weighed 11½ lbs." A cross between a thorough bred South Down and common long woolled sheep is undoubtedly good. If both were thorough bred we should prefer to keep them pure.

HORSES WILL BE WANTED.—The *Wisconsin Farmer* well remarks, "it is inevitable that horses should be in greater demand than for years before the war. Immense numbers will be killed, crippled, and used up, while the uses to which they have been accustomed to be put, will be in no respect diminished. It would be well to breed extensively, and from horses of the best blood. The policy which prompts so many of our farmers to employ cheap 'stock horses,' is of the same class with that which would recommend an inferior quality of seed because of a less price. It costs no more to raise a fine animal than a mean and worthless scrub."

MORGAN HORSE FOR ENGLAND.—The *Lewiston (Me.) Journal* states that a Morgan mare has been purchased in that neighborhood for a gentleman in Liverpool, England. The price paid was \$800. She has trotted her mile in 2:50.

VARNISHING CHEESE.—A writer in the *Dairy Farmer* states that it is the practice of some dairymen to coat each cheese thinly with a varnish made from shellac dissolved in alcohol, when about to be shipped for market. It is said to improve the appearance of the cheese and to keep it from losing weight and gathering mold.

RAT-KILLING ASSOCIATION.—We have before alluded to the fact that a rat-killing association had been formed in Pickaway county, Ohio. It appears from the *Circleville Watchman* that last season the association, consisting of forty-two persons, killed 17,870 rats, or an average of 413 to each man engaged in the hunt! The *Watchman* estimates that these rats would have eaten 35,000 bushels of grain.

BIG CALVES, LAMBS, PIGS, ETC.—Correspondents of the *Maine Farmer* are telling big stories of wonderful calves, lambs, pigs, etc. One had a calf that weighed, as soon as it was dropped, 109 lbs.; another had one that weighed 120 lbs.; another had a cow that dropped four calves this spring, and the year previous three calves. Another had a lamb which weighed 11½ lbs. at birth, and 29½ lbs. when 31 days old. It was half Cotswold.

A HEN COVERED UP ALL WINTER.—The *Keene Sentinel* says a hen was discovered under a girt in a barn in that town, on the 28th of March last, where she had been accidentally covered up with clover hay about the 10th of July—having lain there nearly nine months without anything to moisten her throat but the snow that fell near crevices of the barn in winter. The hen was found alive, but much emaciated, and she “still lives.”

SCOURS IN LAMBS.—A correspondent of the *London Mark Lane Express* says he has lost for the last two years one-fifth of his flock of lambs from scours, and after due reflection he has come to the conclusion that one great cause of the disease is *pasturing the lambs in a field that has been heavily stocked with sheep the previous season*. The remedy he suggests is, as soon as the symptoms appear, to give them grain and oilcake, well salted, and change their pastures frequently—as often as once a day, if possible.

OATS SHOULD BE SOWN THICK.—J. D. G. NELSON, of Indiana, writes to the *Country Gentleman* that he formerly sowed two bushels of seed oats per acre, and was glad to get a return of thirty or forty bushels. Now he sows never less than three and generally four bushels per acre, and if the land is very rich, moist and abounding in vegetable mould, he sows even more. He now gets fifty to seventy bushels per acre, and is never troubled with weeds. When he sowed thin, the oats frequently lodged, and were full of weeds.

A TROT ON THE ICE.—W. W. MOORE, of Crown Point, N. Y., writes the *N. E. Farmer* as follows: “A trot came off on the 14th of April, on the ice, between the black mare Fanny Barret, of this town, and bay mare Green Mountain Queen, of Bridgeport, Vermont. The town of

Crown Point is situated on Lake Champlain, on the New York side, and Bridgeport on the Vermont side. The trot was on Lake Champlain between the two places. There was a large number of people on the ice to witness this trot, attracted there not so much to witness the speed of these two beautiful ‘nags’—but the idea of a trot upon the ice on the 14th day of April excited the curiosity, and for that reason much interest was taken. The mares made a good race, but the result became a disputed point, and was finally left unsettled. Years will roll away before the people in this vicinity will again witness a scene so novel and rare, as a horse trot upon the ice on Lake Champlain on the 14th of April.”

HOGS IN CHICAGO.—The Report of the Board of Trade of Chicago shows that the number of live and dressed hogs received in that city during 1861 was 675,902. This is 135,516 more than in any former year.

TO MAKE SOWS OWN THEIR YOUNG.—A correspondent of the *Boston Cultivator* says that he had a sow which would not own her pigs, and that after trying various things without effect, he gave her a *pint of rum*, which had the desired result. The rum was put into the swill, and, he says, “she drank it like any old toper, and was perfectly quiet for three or four hours afterward.” The *Maine Farmer* says [the same prescription will prevent sows from eating their young. We suppose the rum makes them feel comfortable.

COLD WATER FOR BURNS.—MR. SETH HUNT, of Northampton, gives, in an exchange, the following statement of the success of treating with cold water a severe burn and scald in his family: “Cold water was applied by immersion, till the pain ceased; the water being changed as often as it became warm. The part was then kept swathed with wet bandages, a dry woolen one enveloping them, until the injury was healed. The healing was rapid, and effected without leaving a scar. The instant relief which the cold water gave from the excruciating pain, was highly gratifying.”

HOW TO PROVE THE VITALITY OF EGGS.—DE BERRI, Rye, N. Y., writes to the *American Agriculturist*: “It is emphatically ‘Love’s labor lost’ to set a hen on eggs lacking vitality. For some years I have generally been successful in ‘counting my chickens before they were hatched.’ About the second week in March I selected fresh eggs of medium size, and set as many hens as possible at the same time. After three days, examine the eggs at night with a light, those having the embryo chick will appear dark, while those lacking vitality will look as clear as ever. Remove them, as they will not hatch, but are still fit for family use. Transfer the good eggs from one nest to another to make up deficiencies, and give the robbed hens fresh eggs.”

RED AND WHITE CLOVER FOR BEES.—The *Bee Journal* (now discontinued) says: “When it happens that bees can not gather honey from other sources, while the red clover is in blossom, they will occasionally resort to this plant for supplies. But they find it difficult to accomplish their object, because the tube of the blossom is so long and narrow, that they can not reach the nectaries in the usual manner. They can only gain access to them

through a slit in the tube, situated between the calyx and the corolla. The tube has only two such slits, and the bees are not always successful in their efforts to extract the nectar through them. The humble bees, having the advantage of a longer proboscis, readily reach the nectar through the mouth of the tube. The blossoms of white clover, as well as those of white and yellow melilot, have short tubes, and the bees encounter no difficulty in extracting the honey through them."

MANAGEMENT OF HONEY BEES.

THE past winter, though very mild and favorable to bees with plenty of stores, has been exceedingly disastrous to all stocks short of honey. In some cases, more than half the number of families on hand in December last have perished. Even the most experienced bee keepers have lost largely, owing to the mild winter causing the bees to consume their stored honey much faster than is the case in colder seasons.

The only remedy against such losses is to feed all the families which have not stored up an abundant supply, liberally in the months of October and November, on mild, warm days. But then comes the question, *Does it pay to feed bees in the fall?* My experience is that it does pay, if but a few pounds of honey or sirup of sugar are required for each family, and the feeding can be done without attracting all the bees in the neighborhood—which it requires considerable experience to do.

The next question is, should each family be fed separately, or should the bees of the entire apiary be fed in common?

Though this subject is not particularly in season now, perhaps it will be as well to dwell on it sufficiently to give my readers the benefit of my general experience on that especial point.

Feeding a large apiary, say forty or fifty hives, would require—if fed in common—five or six shallow boxes, about two feet long by six to eight inches wide, with a float made to fit closely to each, made of half-inch board, and either bored thickly with a gimlet, or sawed in narrow cuts to near the centre, and the slits cut out on both sides to enable the bees to extract with facility the honey which will rise into these channels. If the float is bored the holes should be burnt out a little with a hot iron, to make them smooth.

Now we will proceed to feed said forty or fifty stocks on some warm, sunny day in October. We want the job done in "double quick time," so as to attract as few of our neighbors' bees as possible; and in order to trail the bees to the honey speedily—as it sometimes takes half a day to let them know that the boxes contain honey, so as to draw them out in full force—the previous day we will place a few empty combs in the places where we intend to set the boxes, and either fill the cells with strained honey or sirup made of sugar, simply sufficient to draw out the bees to these places in search of food; and the next day, as soon as the boxes are brought out—not before 9 or 10 o'clock—the bees will immediately find the supply, and in two hours every box will be empty, though each were to contain three gallons of honey or sirup. Yes, it is a fact that fifty families of bees in a single day

would, if an opportunity were afforded them, and if they had combs to store it in, carry fifty gallons of honey into their hives.

Now, if a full supply be afforded at one filling of the boxes, I think but little honey would be carried off by neighboring bees. Every family with but little honey stored up, would require from one to two gallons of honey, or from 10 to 20 lbs., to carry it through the winter. The cost of a gallon of strained honey—such as comes from the West Indies—is about 75 cents to \$1; and a gallon of sugar syrup—white coffee sugar is best—is about 80 cents. But the honey is best, and, at \$1 per gallon, should be preferred. So it will cost from 80 cents to \$2 per hive to save most of the bees that perish in the winter season for want of food.

But feeding in common has this disadvantage: The strong families that already have enough, will take more honey than the weak ones, which alone require feeding. This is rather a serious drawback to the system, and some bee keepers may find it quite too unprofitable to practice it.

Feeding the weak families—such as are short of honey—by themselves is, perhaps, the best way. This is done in various ways; but great care is necessary to avoid attracting other families to the hives fed, which leads to robberies, if the fed families be weak in population. If honey in the comb be placed in the supers of the hives—where the boxes for the surplus honey are placed—the bees will take away no more than their present necessities require, and will leave the balance for winter use—which would be right if the weather were not often so cold that they can not ascend into these supers to obtain it, and consequently perish. If strained honey or sirup be placed in the supers in shallow boxes or pans, with floats upon them, perforated as before stated, the bees will carry it down into their cells and store it there, which is a safer way of feeding weak families than with comb honey.

Some apiarians attach a covered box containing honey to the side of the hive, with a tin tube to connect with the combs in about the centre of the hive. This is a good plan, and does not attract other bees much if the boxes are tightly closed.

Another method, is to make boxes open at both ends, about eight inches deep and of the same size as the hives. These boxes are placed upon the hive stands at the close of the day, and boxes of honey or sirup placed in them, and the hives raised and set upon them, closing the passage ways to keep out the bees of other hives in the day time. The bees in hives thus fed should not be allowed to come out till they have carried up the honey in the boxes, as other bees are sure to enter and carry off this honey, if allowed an opening.

It is a good plan to attach some covering over these boxes, raised about an inch from their tops, to catch the droppings of the bees while engaged in storing the honey. Bees are very neat in their habits, and if the fed honey becomes covered with particles of comb and other foul matter, they will not store it up as freely as they do under other circumstances.

T. B. MINER.

Clinton, N. Y.

LETTER FROM SAMUEL WILLIAMS.

OUR old friend and correspondent, SAMUEL WILLIAMS, of Waterloo, N. Y., writes us a pleasant gossiping letter, which, though not designed for publication, will be read with interest.

You now begin to have your reward for being the first to expose Mapes' frauds on the farmers, but it will be some time yet before the majority of them will know much about it. Methinks JOSEPH HARRIS, with his plot experiments, and JOHNSON and PUGH, with their manure estimates, must do the "state some service."

Your remarks on the seed of the potato are very interesting. You may get earlier potatoes from the seed ends, but I always get larger and better ones when I throw away the seed ends. Cut a good sized potato, two seed eyes to a piece, and plant ten inches apart in the drill; but my rich clay garden soil gives more weight of stalks than potatoes, hence I plant only a few early ones.

I grow pole beans only. I have an improved kidney (find four enclosed for one pole). They hang in clusters, eight and nine in a pod, yielding twice the quantity of the pole cranberry, or the large flowering bean.

JOSEPH WRIGHT has just received his seed corn from Illinois. There is positive proof that he gets one-third more grain from this corn, on the same soil. Cutting those large stalks by horse power to feed will only pay when hay is dear, and you have, as he has, plenty of help.

My wife says, after reading your BEMENT egg-preserving essay, that she has tried both lime-water and grease, but that her best success is to pack them fresh in good dry salt, in stone crocks, and keep them in a cool, dry basement cellar. They kept well over six months.

A small ration of beets and carrots is relished by a cow, and it undoubtedly contributes to the digestion of the hay; but my still-fed cow soon cloy of them, and is greedy only for fine, early cut hay and bad potatoes.

If I should tell a farmer how many mangel wurzel beets I got from three square rods, he would call it a fish story.

I have been trying to grow tomato plants in pots in the house—a bootless task, unless you use swamp muck, and harden them by exposure to outside air.

But no man knows, who has not tried it, what a treasure this muck is to both a clay and sand soil. TAYLOR, our new nurseryman, at my instance paid \$40 an acre for four acres, $1\frac{1}{2}$ miles north. The muck is seven feet deep, is dug late in the season in dry weather, and hauled in in winter. It is chiefly a deciduous leaf mould, and not a poor, sandy, hemlock swamp mould.

I like your "Walks and Talks in the Garden." Those only who use swamp muck freely on their borders have fine verbenas, etc.; even a daffodil puts on a more joyful bloom in such a border.

Lima beans grown here are small, and no richer than other beans. I plant no more of them.

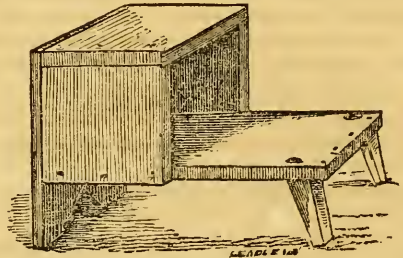
Growing sweet potatoes is about as bootless; yet Mr. Cock has sent to Ohio for one thousand plants, to plant himself and give away, but I'll not bother with such a gift.

I plant sweet corn to-morrow (May 2). Peas and onions ready to hoe. I have hardly time to read the sensation news now, but to-day the soil is too wet for the spade or hoe.

MILKING STOOL FOR KICKING COWS.

A SHORT time since we gave our method of milking, advising to sit close up to the cow, holding the pail firmly between the knees, and not to put the head into the flank, as it commonly done. In this way we have seldom had the pail upset by a kicking cow. A correspondent of the Iowa *Home-stead* gives the following description of a stool to use in milking kicking cows, and says:

Most people use the old fashioned milking stool, with three or four legs, which just answers the purpose for the milker to sit upon, and affords no security to the milk or pail, except to set the latter upon the ground in front of the milker, where it is liable to be upset by a kicking cow; or to hold it between the milker's knees. There is a much more convenient form for a stool than that, which may be made out of inch boards, as represented in the cut. Upon this stool the milker has room to



MILKING STOOL.

sit, and at the same time to have sufficient room upon the point end for the milk pail to stand upon, making altogether a kind of two-story stool. Bring the pail between the knees of the milker, where it can be held securely without much effort. The milker should, if the cow is a kicking one, set the front part of the stool, with the pail upon it, directly under the udder. as if milking a gentle cow, and at the same time press his left knee gently and constantly against the cow's right, hind leg, holding the pail firmly between his knees; and if the cow should kick with the right foot, let him keep his position, and grasp the leg of the cow, as she raises it, and prevent her from throwing it forward; or at least compel her to throw it so far toward the other hind leg, and away from the pail, as to cause no injury or loss of milk. A firm grasp in that way, for a few times, will certainly cure a kicking cow, as it gives the milker complete control over her, and she soon becomes convinced that you are her master. We have had a little practice in the matter, and speak advisedly. The stool can be made in twenty minutes; and besides being a convenient one for kicking cows, it is a very useful affair for a gentle cow, as the pail is kept free from the mud, and close to the udder, thus preventing any waste of milk, by milking over, etc.

TOP-DRESSING GRASS LANDS.

LEVI BARTLETT contributes an interesting article on this subject to the *Country Gentleman*. After alluding to the importance of the subject, he says:

Among the most important experiments in top-dressing grass lands with different fertilizers, those of Messrs. LAWES and GILBERT, of Rothamstead, Eng., take precedence. "The land selected for the experiments comprised about six acres of the park of Rothamstead, and it had been under permanent grass for certainly more than a century. Early in 1856, nine plots of half an acre each were measured off, for as many different combinations of so-called artificial manuring substances; two of an acre each to be continuously unmanured, and two of a quarter of an acre each, to be manured annually with farm dung."

We can not here go into the particulars of the whole series of the different plots and fertilizers, but must content ourselves with some of the general results arrived at by Messrs. L. and G., viz: Where purely mineral manures were used, they greatly increased the growth of leguminous plants (clovers), with very little increase of the true or long-leaved grasses. Where the purely ammoniacal salts were applied, the effect was to much increase the graminaceous or long-leaved grasses, without at all increasing the growth of clover. Where a mixture of both mineral and ammoniacal manures were applied, the increase of hay was very striking, over that on the plots receiving the two kinds separately.

It was found that although the ammoniacal salts when used alone, gave an annual increase of only eleven cwt. of hay, the same amount of ammoniacal salts, when in conjunction with the "mixed mineral manure" (plot ten), gave an annual increase of one ton, fifteen and three-eighths cwt. of hay. That the combination of ammoniacal salts and the mixed mineral manure gave more than three times as much increase as the ammoniacal salts alone, and four times as much as the mineral manure alone. The average annual produce by the mixture of the ammoniacal salts and mineral manure, amounted in fact to within less than a hundred weight of three tons of hay per acre, by the side of one ton, four cwt. per acre on the continuously unmanured land.

The above statements seem to point out pretty conclusively, that for the greatest increase of our farm crops, the manures applied should contain all the necessary ingredients of the crops, both organic and inorganic, of which good farm-yard manure is the "type." The above may be laid down as a general rule, to which there may possibly be some exceptions—as in the cases of superphosphate of lime for the turnip plant, and ammonia for the wheat plant. But the farmer who depends upon raising maximum crops, and keeping up the fertility of his soil for any great length of time, by the continued use of either class of manures alone, will ultimately find his system of manuring has been a bad one.

"Among the most interesting of the points incidentally brought out by the experiments, is the striking confirmation which the results afford of the (so to speak) special adaptation, in a course of

practical agriculture, of certain of the crops of our rotations, according as they belong to one or the other of the two great families of plants," the *leguminous*—clover, lucerne, peas and beans; and the *graminaceous*—wheat, barley, rye, timothy, and other long-leaved or natural grasses. The "interesting points" brought out were, that the application of the mineral manure alone greatly increased the clovers without anything like a corresponding increase of the natural grasses; while the effect of the ammoniacal manures was exactly the reverse. And, where the two kinds of manures were used conjointly, "the produce consisted almost exclusively of graminaceous plants. There was scarcely a clover or any other leguminous plant to be found on the plot."

The past season Mr. HARRIS, of the *Genesee Farmer*, experimented on grass lands with several kinds of fertilizers, both organic and inorganic, alone and mixed. The application of the several kinds of manure exhibited similar results to those obtained by Messrs. LAWES and GILBERT, viz., "the plots that were dressed with ammonia, superphosphate of lime, and unleached ashes, gave a very much greater quantity of produce than any others." There is one fact that we must not forget to mention. The superphosphate and ashes on plot No. 6, brought in a large quantity of red clover. The effect in this particular was very marked. On plot No. 7, with ashes and plaster, there was also a little clover, but not one-tenth as much as from the superphosphate and ashes." The field experimented on was a timothy meadow, six years from seeding. Mr. H. does not attempt to draw any conclusions from the results, intending to repeat the experiments next season.

The "Transactions of the Essex Ag. Society, 1861," contain an interesting statement on top-dressing grass lands, by RICHARD S. ROGERS, Esq., of South Danvers. He says, "There is no subject in agriculture deserving of more inquiry, and of greater importance to the farming interest, than the knowledge of the best kind of fertilizers to be used for top-dressing grass lands. As yet but little is actually known by which to arrive at any practical results for obtaining the largest crops of grass.

"The desire of knowing something more definite and practical on this interesting subject, induced me last season to institute in a small way a series of experiments, in the hope that I might derive some benefit myself, and be useful to others. Accordingly, in April, 1860, I selected a field best adapted to the purpose—very uniform in the sward, free from shade and other objections—and staked out five several lots, each measuring 250 feet long by 45 feet wide, and top-dressed with the various fertilizers, as follows:

No. 1.—2 cords of manure, well rotted and mixed with $1\frac{1}{2}$ horse carts of soil.

No. 2.—120 bushels leached wood ashes.

No. 3.—2 cords green cow manure, the droppings of only a few days before.

No. 4.—80 bushels unleached or dry wood ashes.

No. 5.—225 lbs. of Peruvian guano, mixed with $1\frac{1}{2}$ horse carts of brook mud.

"The cost and value of the top-dressing for each lot was as near \$10 as possible. The grass was carefully cut and made—the first crop in July,

the second in September—and accurately weighed, yielding as follows."

Mr. R. gives, in his report, well arranged tables of figures, showing the weight of dried hay of 1st and 2d crops on each plot for the two years, 1860 and 1861. But for want of space we omit his figures, and give some of the more important facts elicited.

The weight of hay on each plot for two years, was as follows, viz., compost, 3,260 lbs.; leached ashes, 2,520 lbs.; green cow manure, 3,350 lbs.; dry ashes, 3,340 lbs.; guano, 2,240 lbs. The compost giving the least yield; green cow manure the greatest, but only 10 lbs. more than the dry ashes. The guano dressed lot in 1861, on its first cutting, gave only 730 lbs., against 1,300 lbs. in 1860. The dry ashes very much increased the crop, the second year giving 1,350 lbs. at the first cutting, against 900 lbs. the first year. "The green cow manure did well both seasons. The leached ashes likewise did well."

"The Peruvian guano is a *great stimulant*, and can be used for some purposes to great advantage, but as a durable or permanent top-dressing for grass, excepting for one crop, I should doubt its efficiency."

Mr. R. says: "Having turned my attention very particularly to top-dressing my grass lands for several years past, I may be permitted to speak very confidently of the great advantage to be derived from practicing it, and perhaps have realized as much benefit as any one from pursuing it."

We think if Mr. ROGERS had left a plot of ground adjoining, of the same size, without manure, contrasting the yield with the manured plots, the "profit or loss" of the several different applications of manure would have been more accurately determined. We should also have been glad to have learned whether the growth of clover was greater on the plots receiving the ashes than on those that were top-dressed with the guano and green cow manure.

That the green cow manure should cause a yield of hay so much greater than the same quantity of well rotted manure, no doubt may surprise some persons—a fact widely at variance with the general practice and theory of farmers, but *facts* are what are wanted. Of the correctness of Mr. R.'s statements and figures, there can not be a shadow of doubt.

In C. L. FLINT's Agriculture of Massachusetts for 1857 and 1858, we find the statements of H. J. HODGES on the use of different fertilizers on grass lands. "In April, 1857, staked off seven half acre lots on the Hampshire, Franklin and Hampden Ag. Society's grounds at Northampton. Each lot was of precisely the same quality of soil and in the same condition, and in grass, timothy, red and white clover; six of the seven lots received a top-dressing, each with a different fertilizer, having one lot without any. Each lot was mowed at the same time, and managed alike, and the hay upon each weighed separately. The soil is a loam with sand and clay so well mixed that good judges disagree whether to call it *sandy* loam or *clay* loam—it is a cold land, and retains moisture late in the spring. The treatment of the lots was as follows:

Lot No. 1, no manure; No. 2, poudrette, 2 barrels; No. 3, plaster, 500 lbs.; No. 4, superphos-

phate, 150 lbs.; No. 5, horse and cow manure, 4 loads; No. 6, ashes, 10 bushels; No. 7, guano, 158 lbs. Mr. HODGES gives a table of figures, showing the cost of the fertilizers; quantity of hay first and second mowing of both years, total value of hay at \$6 per ton, increase of hay from fertilizers first year, with the loss or gain first year from fertilizers.

The tables show that ashes is the only profitable fertilizer to be used as a top-dressing *here*. For the two years the increase of hay is much the greatest, and the only lot on which the increase of hay paid for the fertilizer the first year, and the increase of hay did not pay for fertilizer on any other lot for the two years. The lot where guano was used, gave greatest increase of hay for first year, but ashes did for second. Mr. H. very sensibly remarks, "it is not to be supposed that the same result would follow from all soils."

By his figures, there appears to be a loss on all the fertilizers, ranging all the way from 74 cents to \$6.44 for the first year, except on ashes; here there was a gain of \$2.19. Why there should be such a similarity of action by the ashes in Mr. ROGERS' and Mr. HODGES' experiments, and such a wide difference in that of the cow manure in the two experiments, is to us inexplicable. It is true we do not know how much a plot of Mr. R.'s ground *unmanured* would have yielded. The plot the first year with the compost gave 1,170 lbs. of hay; that with cow manure gave 1,600 lbs. The same plot second year gave 1,750 lbs., while the guanoed plot same year yielded but 870 lbs.

In some places hay is worth, as put down by Mr. HODGES, but \$6 per ton; in others \$12 per ton; in others \$18, or more per ton. At the last named price, the figures would have presented quite a different face from that exhibited by Mr. HODGES in his tables.

To the importance of the hay crop in regions where farm stock must be fed from the barn from five to seven months each year, we have already alluded. Census statistics show that there has been a very great reduction in the number of horses, cattle and sheep in some of the northern States within the past twenty years. This decrease of farm stock probably is mostly due to a corresponding decrease of *hay*; if so, then it is a matter of high importance that means should be taken to increase it. This can be largely effected by top-dressing and irrigating grass lands. The statements quoted in regard to the first method we admit do not establish any general rule that will economically apply in all cases, seasons and soils. We have experimented to some extent in the use of both composted and green manure, both in spring and autumn, and always with satisfactory results. After spreading the manure we have usually sown grass seed—from one-third to one-half as much as if newly stocking down to grass—and then have thoroughly harrowed the ground, and sometimes have followed the harrowing with hand rakes, clearing off any obstructions that might interfere with the subsequent mowing and raking.

On many farms there are patches and plots of grass lands, yielding light crops of hay, that can not well and profitably be plowed and cultivated, arising from the rocky nature of the land, or wetness of the soil, or from the distance of the field

from the barn. Such fields can frequently be top-dressed or irrigated to the best advantage, and the interests of the owners of such should prompt them to experiment in one or the other of the above named ways.

NOTES ON BACK NUMBERS.

EDS. GENESEE FARMER.—In looking over a volume of the Connecticut *Homestead*, for 1855, I find an article accredited to your valuable paper upon

MILK COWS AND CALVES.—It is stated that "the first milk should be drawn out of the bag before the calf sucks." The writer's name is not given, hence I am unable to learn its author—that is, whether it is editorial or not; but, as far as the proposition is concerned at present, it will make but little difference. Still, when an article is taken from one agricultural paper and published in another, it would be satisfactory to have the writer's name, when given, appear with the selected article. But to the point. Is it according to nature's law to deprive the calf of the first drawn milk or beastlings? Is not this milk just what the calf wants to clean out and set into healthy action the whole alimentary canal? Says YOUTART, after advising that the calf should remain with its mother till the milk is suitable for use, "The farmer acts wrongly when he throws away, as he is too much in the habit of doing, the beastlings, or first milk of the cow," because it is that "which nature has given an aperient property" to carry off "the black and glutinous fœces" which always accumulate in the intestines before parturition.

SOWING CLOVER SEED.—Your remarks upon this, in the April number, are to the point, and ought to be read and re-read by a large proportion of farmers, till its teachings are as familiar as "household words," so that the echo of their own steps would sound in their ears as though the walls were chanting, *Sow more clover, sow more clover!*

In respect to the amount per acre, I think you have set it rather too low, though it grows so bountifully under many unfavorable circumstances. Eight to ten lbs. used to be the usual amount per acre here, but farmers now put in fifteen to twenty lbs. per acre as frequently as they used to ten; and besides, those who raise it and seed as they think land ought to be, quite generally put in twenty to thirty lbs with four to eight quarts of timothy per acre, when it is intended to raise seed a year or two and then to be cut for hay. I have known twenty-five lbs. seedling to give two hundred to three hundred lbs. of seed, when half the seed, on just the same quality of land, side by side, other things being equal, would not give half the amount, and this repeatedly. It is found to hold out longer and to yield a fine nutritious hay where twenty lbs. and more is put on with timothy. The timothy will not show itself much the first, and perhaps the second, year, it is true, when the clover does well, but after this the two will be about equal. It is an object to seed down land, where it is not suitable for tilling, for durability, and this is accomplished by sowing bountifully of several kinds of seed.

POTATOES FOR HORSES.—"Are raw potatoes wholesome food for an idle horse?" is given out

for farmers to answer if they please. "Inquiries and Answers" is a useful feature, growing more in repute. They are generally perused next to the war news, it seems, and well it is so.

For an occasional feed, say once or twice a week when a horse is fed on dry feed, they are a good change, but for daily use for an idle or working horse they have not been found so desirable a feed for the horse as for neat stock or sheep. Were feeding coarse, dry feed to a horse, I should prefer a few potatoes to all corn, at one-fourth the price but if the feed was to be good English hay, should take the corn; and farther, I should, as general thing, rather have the same value in oat than in corn. Let the farmers and those who have used horses to hard labor and tried different kind of feed, speak forth upon this question, because it is one of importance to a large class of laborers.

LICE ON CATTLE.—What kind of kerosene oil they have elsewhere, I know not, but such as I made in Maine will kill lice on cattle sure, and just as sure will it take the hair and outer skin (epidermis) off as it is put on sufficiently to kill the lice. I saw it recommended a year and a half ago, and tried it on cows and calves very carefully, fearing its effects, and have seen it tried this past winter and wherever it was tried it made clean work. The hair grows out in due time. Why this difference in experience with this oil? O. W. TRUE.

Rural Home, near Phillips, Maine.

RECEIPTS FOR HARD SOAP.—In reply the inquiry of D. E. DAVIS, in the May number of the *Genesee Farmer*, I send you the following receipts for making hard soap:

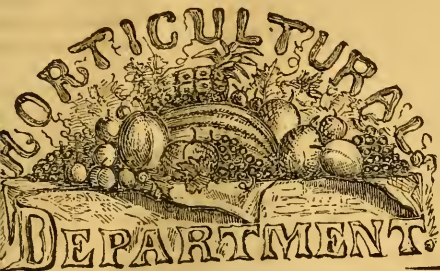
1. 6 lbs. washing soda, 6 lbs. fat, 3 lbs. unslacked lime, 1 teacupful fine salt, and 5 gallons soft water. Put the soda and lime in a tub, and pour over them the water boiling hot. Stir to dissolve. Let it stand until it is clear and all dissolved, then pour off the clear liquid. Add the fat and salt and boil altogether four hours. Then pour into pans or deep dishes to cool. Then cut out into bars or squares to harden.

Tallow makes the most beautiful white soap. There should be very little of the sediment left after the liquid is poured from the lime and soda. The sediment left is a purifier of sinks, etc.

2. TO MAKE SOAP WITHOUT GREASE.—1 lb. rosin soap, 1 lb. sal soda, 1 oz. borax. Dissolve the soda and borax in 4 quarts of rain or soft water. Then add the soap, and boil until dissolved. Pour out to cool. Cut in bars.

The above first receipt has been tried, and will make more than 30 lbs. of excellent white hard soap, at a very small cost. To the farmer, the outlay will only be for soda, 24 cents. Perhaps the addition of 6 oz. of borax would be a great improvement, as borax is good for washing clothes and hands. Any one can try for themselves.—A SUBSCRIBER.

A CURE FOR FISTULA.—One ounce sal ammoniac, one-fourth lb. of May apple root, one-half lb. of lard. Pound the root fine. Put all together and fry on a slow fire about half an hour. Rub on the sore, and heat with an iron. Two or three applications will effect a cure.—J. W.



TALKS AND TALKS IN THE GARDEN.—No. II.

We do want rain. A few things are suffering, but I do not like to own it. It is a bad sign when a farmer, gardener complains of dry weather. When I first went to Rothamsted Mr. LAWES asked me about my father's farm, the crops we raised, yield, &c. I told him it was a light, firm soil and produced well *in wet seasons*. He quietly remarked 'I fear your father is a poor farmer.' 'A good farmer,' he said, 'always dreads a wet season.' By a good farmer he meant a 'high farmer'—one who manured heavily and kept a large stock feeding on oil-cake, clover, &c. LAWES was right. Make the land rich, keep it clean and mellow and drought will seldom injure it."

"The trouble is you can't get a gardener that likes to use the hoe. Most of them prefer to rake and make things smooth. I sometimes feel like banishing the rake from the garden. This dry weather is just what we want to destroy weeds. Even this abominable chickweed will die if cut off while it is so hot and dry. You can't hoe too much unless the soil is exceedingly sandy. A rather stiff soil that is apt to bake in dry weather, should be hoed—I was going to say everyday, but that is asking too much. However, it can't be hoed too often. Those who have not tried it will be surprised to see how things will grow if the hoe is constantly used. A weed never ought to be seen in a garden after the first of June. Keep the ground so thoroughly hoed that they have no chance to grow. Don't let the weeds get the start of you. Weeds are like fire 'a good servant but a bad master.' They are sent as an incentive to hoe—to stir the ground, to let in the sunshine and air, and dews, and rain, and thus warm and enrich, and water it. But let the weeds get the start of you and it is difficult to get them under."

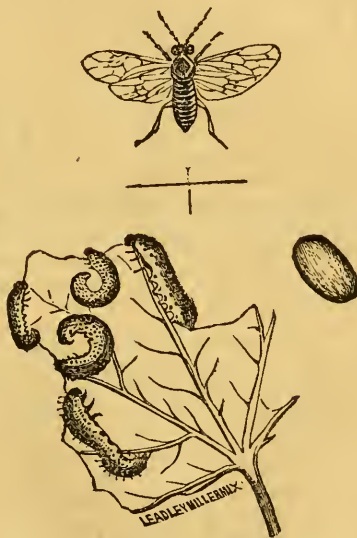
"The worms are on the currant and gooseberry bushes already. Look how nicely the eggs are glued to the undersides of the leaves. A few days of this warm weather will hatch them, and then the caterpillar will soon strip the bushes of foliage if not checked in some way."

"Nonsense. A sensible man like you ought not to talk of giving up the culture of anything merely because it is attacked by insects or fungi. I would like to know what plant, or shrub, or tree is exempt from them. In the Garden of Eden there were no insects or weeds, but no garden since has been exempt. In a new country there are so many discomforts that nature provides some slight compensation by allowing the first settlers a short period of comparative exemption from insects injurious to their crops. As society, good roads, good markets and

other advantages of a settled community are obtained, the bugs and worms, and beetles, and flies innumerable come in to render increasing vigilance still necessary. This gooseberry saw-fly is no new thing. It has been known in England for centuries. It can be destroyed, or rather so far kept under as to do comparatively little damage. The most approved remedy in England is to dust the bushes with Black Hillebore powder."

"Another good plan is to train the bushes on a single stem, and then you can shake off a good many of the caterpillars and destroy them, or by putting a little tarred cotton round the stem prevent them from crawling up again."

"It first attacked the currant bushes to any extent in this vicinity in 1858, and in the *Genesee Farmer* for July of that year you will find a full account of its habits, history, &c., together with a cut of the fly and the caterpillars. The fly emerges from her winter quarters in April or May, according to the season, and deposits her eggs on the leaves. These hatch in about a week and the caterpillars soon commence their work of destruction."



GOOSEBERRY SAW-FLY.

If you do not destroy the first brood, the caterpillars, when full grown, descend to the earth, undergo their transformations and emerge again as perfect flies to renew the work of destruction. In this way you may have two or three broods in a season, and if people let them alone they will spread with fearful rapidity. Go home and declare war with the rascals. Hoist the black flag. Give no quarters—and you shall have currants still in spite of the saw-fly.

"The mildew on the gooseberry is a sorer trouble.—It is difficult to raise the large English kinds. Mulching the bushes and scattering sulphur on the leaves and fruit as soon as the first appearance of mildew is seen, are the only preventives I know."

'Yes. I think sulphur will check it if *applied in time*. The mildew on the gooseberry is closely allied to the grape mildew, and we know that sulphur dusted on the

leaves and fruit is a certain cure for grape mildew when done early enough. So it is for mildew on hops, and I believe it will be found efficient on the gooseberry."

"Here is the 'tree tomato' so much talked about. This plant has been in the green-house all winter, and is almost as stiff as a dwarf apple tree. It is quite handsome, and the French papers speak of its productiveness, hardiness, and other good qualities in high terms."

"No doubt about that. If you have time, tomatoes can be trained on trellises or on a board fence so as to present a very beautiful appearance, and also to produce a large quantity of fruit of superior quality. The plan you allude to was described in the *Genesee Farmer* for June 1857. Drive stakes into the ground when the plants are set out—and as they grow nail some strips of wood across so as to form an espalier to train the plants upon, a foot apart. Long thin poles tied to the stakes will answer just as well. Train the main stem right up the post and when it has set the first branch of fruit pinch out the leading shoot to one leaf above the bunch of fruit. It will immediately push another leader, and also throw out laterals from the bottom. Train these laterals along the trellise on each side of the main stem, and when they have set the first bunch of fruit pinch out the leader to one leaf, the same as in the main stem. They will soon push again and set another bunch of fruit, which must be treated in the same way. Mr. SALTER, who has raised them in this way for many years, thinks the fruit is everyway superior, and certainly they look much better than when allowed to trail on the ground."

"The poet SHELLEY sighed for a 'small house and a large garden.' Very poetical doubtless, but a little experience would have convinced him of his error. A small garden is a great deal better when it is cultivated as a recreation. I should want it a little bigger than a Chinaman's garden on the top of a house, or on the deck of a canal boat, but not so large that I could not do most of the labor, except digging, with my own hands. Such a garden, for all persons engaged in sedentary pursuits in our cities and villages, who have any taste for horticulture, would prove the source of much pleasure and afford healthful occupation for many a leisure hour. The best gardens in this country—those most thoroughly cultivated—generally belong to such persons. With few exceptions, farmer's gardens do not deserve the name."

"Look at this Wistaria. These vines have been here for several years, but never looked so well before. They are entirely covered with flowers, and nothing can be more beautiful. I suppose the reason is that the fine weather last summer and autumn ripened up the wood perfectly."

"Immature wood is the source of most of the failures and diseases in fruit and ornamental trees. I am accused of having a sort of *immature wood mania*. Few people can bring themselves to think that the pear blight, curl of the leaf in peaches, black knot in the plum, and a thousand and one diseases that affect fruit and ornamen-

tal trees are all attributable to immature wood. But in my opinion this is one of the principle causes. In every department of Natural Science we see a vast number of



THE TREE TOMATO.

effects produced by one cause. In fact this causes the admirable simplicity which the student everywhere perceiving in the laws of nature. Look at the law of gravitation. What an infinite number of different effects, extending through all space, are produced from one cause."

"And so it is no objection to the theory that a great number of apparently diverse effects in horticulture are produced by the simple cause of immature wood. But I must not mount my hobby at this time."

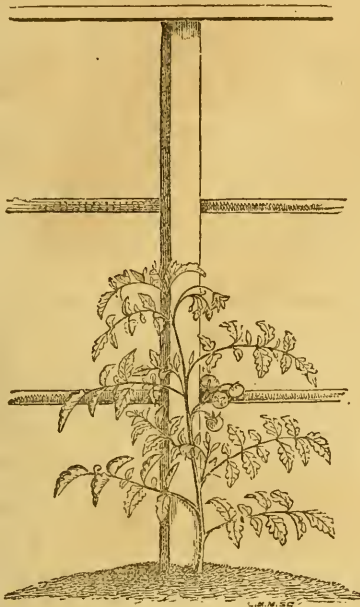
"According to Dr. FITCH we are not likely to be so much troubled with aphides this summer as last. But there are a few already on this pear tree. Soap suds, or tobacco water, if thoroughly applied, is said to be good."

"The Curculio can be kept under. ELLWANGER & BARRY raise magnificent plums every year in their grounds. Jarring the trees is the only known remedy. Merely shaking the trees will not bring down the 'little Turk.'

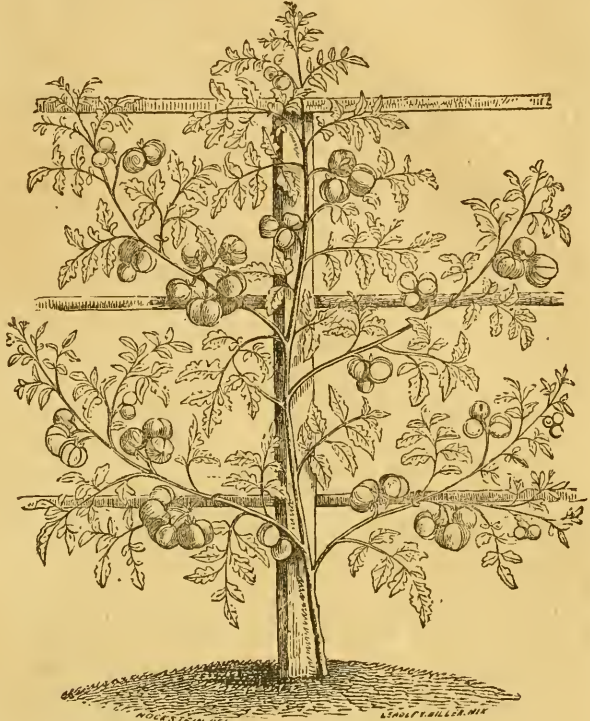
It requires a sharp jar on the trunk, or on the end of a limb sawed off. It should be done early in the morning, before the curculio is fairly waked up. He falls more readily when cold. Lay sheets under the tree and pour the chaps into hot water. This process gets rid of the insects, but it is also advisable to collect all the stung and fallen fruit and destroy it, or let the pigs and poultry do the work for you. 'Jarring' and the 'pig and poultry'

very thick and full of weeds. The gardener remarked to the person who was watering: 'You need not water them; *they are very thick!*' His idea evidently was that the plants and weeds shaded the ground!"

"The truth is that the weeds alone evaporated the water nearly as fast as he carried it, and had he pulled out the weeds and thinned the plants, less rather than more water would have been required."



TOMATO PLANT WHEN SET OUT.



TOMATO VINE TRAINED AND IN BEARING.

remedy, if faithfully carried out, would soon lessen the number of curculios, and we should again be able to raise plums and apricots."

"Strawberries promise well. I have just given them a little superphosphate and sulphate of ammonia, and tomorrow I intend to mulch them with the clippings of the lawn. Tan bark is better if it could be had."

"Things are suffering for want of rain. The fly is eating up these cabbage and cauliflower plants. If we had a good shower they would grow so fast that the flies could do little damage. *Vigorous growth* is a grand remedy against most of the ills that plants are heir to."

"Oh yes; you can water, but it takes time, and watering as ordinarily done, is useless. If you water at all, it should be done thoroughly. The ground must be soaked to the depth of the roots, merely sprinkling the surface is worse than nothing."

"It is astonishing what ideas people have about watering. I saw a couple of men, the other day, watering some celery plants in a cold frame that had been pricked out and were thin on the ground. On another part of the frame there were some cabbage plants that were

"Plants suck up water out of the soil and evaporate it through their leaves into the atmosphere with a rapidity that few people have any idea of. When I was at Rothamsted we made some experiments to determine how much water plants evaporated during their growth. The results showed that an acre of wheat would evaporate on an average 411 lbs of water per day, while an acre of clover, which covers the ground more closely, evaporated 8600 lbs per day."

"You doubt it? Well, I cannot help that. I have no doubt that in our dry climate the evaporation is even still greater. You must recollect that a good days rain, say one inch, brings 120 tons of water per acre. We have, in this section, about thirty inches fall of rain in a year, and this is equal to an average of 19,700 lbs of water *per day* on each acre."

"Put up that two quart watering pot. It rains; it rains! Hail, blessed rain; offspring of Heaven! Welcome to earth! thrice welcome to this hot and dusty garden!! Now for transplanting cabbage, and cauliflowers, and celery! Take them up with a 'ball' and they will not know they have been moved."

THE FRUIT TREE BORER.

We recently called on a friend who is famous for the success of his apple crop. He is no believer in the generally received opinions about "changes of climate" since the days of our forefathers, "wearing out of the soil," "degeneracy of varieties," and the theories that are satisfactory to most people for their ill success; and we asked him for his "recipe" that we might add it to the number already on file.

"My plan," said he, "is simply to keep away the borer." "The borer," he continued, "weakens the trees, and once weakened, the fruit drops before it is mature, or it can not recover from the slightest injury that any insect inflicts on it; moreover, the tree becomes sickly, and then insects prey on it; for they do not like healthy trees. Insects have an office in nature to perform, which is to hasten to decay what nature has intended to remove from living families—just as worms soon take away the life of a sickly pig."

"Easy enough talking," observed a friend with us, "but how do you keep away the borer? Tobacco stems?" "No." "Lime?" "No." "Ashes?" "No, none of these." "Pray, what then?" "Now you give it up, I will tell you. I merely keep the soil scraped away from the trunk down to the bare roots all the year round—summer and winter."

My companion laughed incredulously if not contemptuously; "and," said he, "friend C. I have given you credit for better understanding than to suppose any amount of freezing or roasting will kill a borer once domiciled within the trunk of the tree." "I do not suppose it will," he replied, "I have no such object. If I can ever find one in, I trust to my jack-knife or wire for his destruction, and not to heat or frost." This was a poser.

"What then is your object?" was the next inquiry. "It is to keep the borer out. Did you ever see the borer enter the stem of the tree, at any height above the ground? No. And why? It requires soft moist bark for the purpose; and whenever you remove the soil, and render the bark hard and firm to the collar, the borer instinctively goes to other and more favorable places for the secure raising of its young."

"But will they not go into the main leading roots?" "I have found them to avoid these roots as if it were unfit to rear their young; in fact, I have never known them attack mine."

Nor had they; that was evident. A clean, healthful orchard—never cropped, annually top-dressed, grass kept away several feet from the stem, so that no insect could find a cool and moist harbor for its larvae, and every success following. Certainly the borers did not attack these trees; and the novel reasoning struck us as so philosophical, that we have thought it worth recording in our pages, for further observation and—for we want to be repaid for the suggestion—report in these pages.—*Gardener's Monthly*.

WHALE OIL SOAP FOR THE ROSE SLUG.

SOME years ago, the Massachusetts Horticultural Society offered a prize for a remedy for the slug which feeds on the leaves of the rose. The prize was awarded to DAVID HAGERSTON. The remedy consisted of syringing the bushes with a solution of 2 lbs. of whale oil soap in 15 gallons of water. This remedy has been extensively used, and is undoubtedly effectual. A correspondent of the last *Gardener's Monthly* says he has used it for eight or nine years, and it has not only preserved his rose bushes from the ravages of the slug, but has greatly lessened their numbers from year to year, so that now the labor of protecting the bushes from this insect is materially lessened, though his bushes are much larger. He says:

As late as may be in the season, before the opening of the blooms, put into a bucket, say about 4 lbs. whale oil soap (of late years I have not been particular to weigh or measure, being governed by the color, taste and smell). Upon this pour a kettle of boiling water. With a stick,

with a square end, stir and "mash" the soap till it is all dissolved. Let it stand for a few hours, and strain through a piece of coarse sacking into a tub, which fill with water. As you use it, dilute still more, to as many as eight pails of water. Apply it at night, in fair weather to the plants by means of a good garden syringe, with a *fine* rose. And here let me say, the work must be thorough. Commit it to no hired help; if you do it may be slighted. But grasp the syringe yourself, and make a furious attack on the plants. Charge upon them at every point; go round and round, and round again each bush, and drive, with all the force you can command, the fluid into every part, and under every leaf. Get down upon the ground and force it up, wetting the underside of the leaves, where the insects at this time of the day most abound. After feeling sure you have thoroughly drenched the entire plants, you will find, by turning up the under side of the leaves, they have not all been wet. But charge into them again, and draw them through the wet hand; for, if you have been faithful, your hands and clothes will have become pretty well wet. But no matter for that; you are engaged in a just war, and you must not count the cost. And if your good wife should turn up her nose at the offensive odor which for a while attaches to you, she will excuse it when she comes to look upon the clean, glossy, healthy foliage of her rose bushes, rescued from ruin by so efficacious an agent. I have found one application sufficient. But should they show themselves again "in force," you must repeat the application. But be assured that every one you thoroughly wet will commit no more ravages.

GRAPE TRELLISES—TIGHTENING THE WIRES.

EDS. GENESEE FARMER:—I was thinking, after I got home from my late visit to your office, that it might not have been amiss for me to have mentioned, when conversing briefly about grape vines, the method I mean to try to stretch the wires for my trellis. I have never seen or heard of it, but it may be stale to you. I have purchased some "saw rods," at five shillings per dozen, or five cents apiece. The wire can be attached to each end and then tightened up, and it strikes me that it will be considerably stronger than a thread cut on the wire itself, and is, besides, more convenient for tightening or loosening as the weather may demand. I have nothing but theory to show in the matter now, but hope before long to test it fully, and will communicate the result.

LYONS, N. Y.

RURICOLIST.

STRAWBERRY WINE.—CHARLES D. BRAGDON, of the *Rural New Yorker*, states that E. Sims, of Broome county, Indiana, informs him that he has had great success in making wine from strawberries. He states that he "realized full six hundred dollars net profits from not over half an acre of land in strawberries." He states that he has sold the wine readily at \$2.50 per gallon. He has forty acres in strawberries in Illinois—eighteen of which are in the southern part of the State, for an early market—and intends to make from seventy-five to a hundred barrels of wine the coming season.

PEACH BORERS.—A correspondent of the *Gardener's Monthly* says a friend of his applied spirits of turpentine to his peach trees affected by the borer. The remedy was "radical and thorough, the trees in two hours being so dead that no borer could injure them." The same writer has tried with success a strong solution of tobacco water, applied on a dry day in June, and the tobacco leaves left around the collar of the tree. In the autumn following only one worm was found in a dozen trees.

IRRIGATION FOR PEAR TREES, STRAWBERRIES, &C.

IN the agricultural department of the *Genesee Farmer* this month, we have spoken of the great advantages to be derived from irrigating grass lands. The subject of irrigation is one of such vast importance in our dry, hot climate, that we need not apologize for again calling attention to the results which have attended its use in this country.

We find in the Boston *Cultivator* a communication from ARTEMAS NEWELL, Esq., of Needham, Mass., embodied in the Report of the Norfolk County Agricultural Society, for 1861, giving the results of irrigation on grass lands, fruit trees, &c., under circumstances where to the casual observer a supply of water would be difficult to obtain. Mr. N. says:

"That part of my land which I judged might be improved as to its general productiveness, by both drainage and irrigation, lies between the public road on the south and a pond on its northern boundary. A portion of the land, perhaps eight or ten acres, is a dry, gravelly loam, surrounded on every side by low meadow or peat bog, the water formerly standing or running some four or five feet below the level of the highest part of the land to be irrigated; consequently it seemed impracticable to use the water for that purpose. The center or highest part of the land was cultivated and three or four acres planted with pear trees, between the rows of which were planted strawberries and currants, and in some instances potatoes, carrots, and other roots. The other portion of the high land was devoted to grass or grain. The pear trees were planted in rows nine feet apart each way, giving 81 square feet to each tree, and 537 trees to an acre. Between the rows of trees, beds were prepared for strawberries by back furrowing *very deep* to the center, leaving beds just three feet wide, with a hollow between each bed and row of trees for the water to run in when needed. In the center, between the trees in the rows, a currant bush is planted, thus giving as many of these as there are of the trees.

"In commencing the work, I first ascertained by levels whether I could drain the upper end of the lot, which is a deep peat bog—the surface of the mud and water there being apparently much below the surface of the dry land. It was found practicable to drain it considerably by digging through the high part of the land for a distance of 600 or 800 feet towards the pond on the north, but impossible to carry the water to those higher portions where irrigation was most required. To obviate that difficulty I caused the bog or basin at the head to be made deeper and larger, by removing large quantities of muck, which was used for compost, and this excavation opened numerous additional springs. Then the water was secured by damming up all the old drains leading from the pond so formed, by which means the water rose to a sufficient height to carry it quite above the highest and driest part of the field."

"I describe these preliminary proceedings with some particularity as to the details, because they embrace the most important part of the process. Without those examinations, I should hardly have known from which end of my field the water would run, although the fall was abundant when it was made available. Judging from my

own somewhat limited experience and observation in these matters, I think that even a superficial examination, by the aid only of a common level, will show that there are many farms in our country where irrigation can be successfully practised, with trifling expense compared with the benefit, though the owners now look on the object as impracticable for such localities. There are few farms that have not some facilities for irrigation, if they are sought for and made available. In some cases the sources whence water may be obtained are not on the land most requiring it, but by a small amount of labor a head may be raised where a supply is found in swamps or ponds, and by channels it may be conveyed to the places where it is wanted. It is not unusual to see water carried for miles along the sides of mountains and hills for the purpose of irrigation, in countries where the benefits of the process are duly appreciated. Here, we often see a brisk stream of pure water running through a dry pasture in a crooked channel. In many cases, if proper attention were given, it could, without much expense, be dammed, and carried along the head of the descent and spread over the whole or a greater portion of the pasture during several of the spring and fall months, and, perhaps, by opening the springs, a supply might be obtained that would continue through the summer.

"My plan for distributing the water, is to convey it from the reservoir to the upper end of the pear-tree lot, where it falls into an artificial channel or ditch, which extends across the lot at the ends of all the rows of trees, strawberries, &c. To that side of the ditch next the ends of the rows, is fitted a two-inch plank ten or twelve inches wide, set edgewise, and through the plank, at intervals of four feet and a half, corresponding with the distance of the rows from each other, a round drain-pipe of an inch bore is inserted, with a cork to each, by which the whole or any portion of them may be closed when desired. Each row of trees, strawberries, &c., is thus supplied with an equal quantity of water. When the water has run down the whole length of the rows, it falls into a similar ditch as that at the upper end, and is from thence distributed over the grass field below, or let into a reservoir in which is put strong manure for the purpose of making *liquid manure*, which is distributed in rivulets over the mowing land—a method of *spreading* manure which is found to be of great advantage and requiring little labor.

"That part of the water which is not taken into the head pipes as it passes, (and this is much the largest part,) falls into a channel which conducts it to another pear-tree lot, arranged with strawberry beds, where a part of it is turned through channels between the rows, as before described, and a part runs into an artificial fish pond, the outflow of which is conducted to a small workshop in the garden, and by means of an over-shot wheel, six feet in diameter, turns grindstones, works a turning lathe, circular saw, hay-cutting machine, corn-sheller, pump, &c., &c.

"In regard to some of the effects of irrigation, I consider the hay crop more than doubled by water alone, without the application of liquid or other manure.

"The pear trees, which are mostly on quince stocks, were imported from France, part of them planted in the

spring of 1857, and the other part, from the same nursery, in the spring of 1859. They were two years from the bud. The principal fertilizer they have received is the water applied by irrigation, as before described. On some parts of the grounds the irrigation has been more thorough than on others. Under such circumstances the trees have made more than twice the growth of wood. The difference between those which have been well watered and those which have not, can be seen almost as far as the trees can be seen—the size and luxuriance being so much in favor of the former. The best trees are where there is irrigation on the surface and drain pipes laid directly under them, four feet below.

“Strawberries I plant between the rows of pear trees, in deep, light beds, three feet wide only. By this arrangement the soil is never trodden down, either in planting, weeding, trimming, or picking the fruit, and they are much more easily kept free from weeds. The beds are liberally supplied with strong manure, placed in one deep furrow in the center of the bed, at least one foot below the surface. One row of plants is set directly over the manure, the plants fifteen to eighteen inches apart. They are set in the month of May. The hole for the plant is made with a tool like a marlin-spike, reaching down well into the manure. The roots are let down and the hole is carefully filled with fine earth without pressing, then soaked with water, and dry earth placed over the top to prevent baking. The effect of placing the manure so deep, is to carry the roots of the plant through the manure to the soil in a dry time, to entirely cover the beds by autumn with the most vigorous plants, and to keep the seeds of weeds and grass so low that they will do no harm. The fruit is mostly grown on the new plants, which have derived their vigor from the manure chiefly through the roots of the original plant, the runners of which are cut off in the spring for the purpose of weeding, &c.

“Most of my strawberry beds are watered liberally by a constant flow of water along the channels, which have been described. The results are, that the berries are large and fair; they do not ripen quite as early, but continue in bearing much longer; the crop is certain, even in the driest seasons, when those on dry lands are cut off—sometimes before half the crop is matured. In fact, I deem irrigation almost indispensable for the successful cultivation of strawberries in dry seasons.”

ORNAMENTAL TUBS FOR TREES.—The Royal Horticultural Society has offered a prize of fifty dollars for the best ornamental tub for trees in pots. It seems that in England they are as destitute as we are here of anything at all elegant for such purposes, as the *Gardener's Chronicle* says that the trees in the conservatory of Capt. FOWKE, in the Garden of the Society itself, stand in pieces of hogsheds and clumsy rectangular cases of wood. There is quite a demand here for ornamental pots, but there is no supply. It would seem to be an excellent field for the young artists in our Schools of Design to put into exercise the teachings which they have received.

Gas is now being used in England to heat small conservatories, and it is said very successfully, and that it is not more expensive than coal, when properly managed.

THE CURL OF THE PEACH LEAF.

EVERY spring after the peach leaf is about two-thirds grown, it is attacked in some strange manner, and caused to blister, curl, and eventually drop off. The cause is a subject of various opinions; some attribute it to an insect, others to cold winds, others to other causes too numerous to mention. To remedy this curl is an item of interest to every one. One remedy recommended is, to sprinkle the trees, just before the opening of the flower buds, with a mixture compounded of equal parts of lime, flour of sulphur and soot, dissolved in water.

We have no faith in this or any other external remedy. The cause of the curl of the leaf is undoubtedly owing to a lack of vigor in the tree. This weakness in the tree may be the result of a severe winter, or of immature wood, or of overbearing the preceding year, or of exhaustion of the soil, or of sowing crops in the orchard. One great cause, we think, is the coldness of the soil in the spring as compared with the temperature of the atmosphere. The warm atmosphere starts the sap, and the soil is so cold that the formation of new roots is prevented, and the sap which should go to form roots is thrown into the circulation of the tree and becomes diseased. Underdraining and planting on the north side of a hill, are remedies which suggest themselves, as likely to correct this difficulty to some extent.

ALOES FOR SLUGS ON CABBAGE, &c.

EDS. GENESEE FARMER:—In the last number of the *Farmer*, L. DE VOLK inquires what to do with slugs on cabbage, &c. I answer, dissolve two ounces of aloes in a gallon of hot water, and give his plants a good sprinkling with the solution (when cool) occasionally. I have used it two years, and find it to be a complete protection to cabbage and tomato plants against insects, as also a protection to squash, cucumber, &c., vines, against the striped bug, rose bushes, &c., against slugs, and what will please many house-wives, it is an “extinguisher” to that pest, the bed-bug. Boil your bed-cords in it, and wet the joints of your bedstead with it a few times, and you will certainly be rid of bed-bugs. The best way to apply it to plants is with a garden syringe. If friend DE VOLK is troubled with cut worms in his cabbage yard, cut paper into pieces about two inches square, and wrap a piece around the stalk of each plant before setting, so that the paper will reach a little below the surface of the ground when set out, and the worms will not cut off one in a thousand plants.

WM. HOWE.

PLANTING THE LARGE TREE OF CALIFORNIA FOR TIMBER IN ENGLAND.—The *Wellingtonia gigantia* seems to be very hardy in England. A correspondent of the *Cottage Gardener*, speaking of one he had seen at Worsley Hall, near Manchester, planted by the Queen two or three years ago, as a commemoration of a visit she then made to the Earl of Ellesmere, prophesies that this “magnificent denizen of California” will be planted largely by the next generation for timber purposes, and with every prospect of success, as it has grown well, and stood the frost of December, 1860, without being at all injured.

STOP THE MELON AND CUCUMBER VINES.—As the vines run, pinch off the heads. It will strengthen the vines and throw the sap into the fruit.

A FEW OF OUR BEST ORCHIDS.

UNDER this head the *London Journal of Horticulture* assesses the Showy Dendrobe, (*Dendrobium speciosum*), a native of New South Wales. We annex a beautiful cut of a fine plant five feet in diameter, with nineteen spikes of flowers, each spike two feet long, and each comprising about a hundred pale yellow, sweet-scented flowers. It is



A FINE ORCHID—SHOWY DENDROBE.

cultivated in a greenhouse throughout the year, with a temperature suited to Pelargoniums. An English cultivator succeeded admirably by the following treatment: The plant was grown in an intermediate-house varying from 65° to 75° in summer, but at other seasons from 55°. In May, its season of rest, it was placed in a pit, exposed to the sun, and very little water given. In September, the commencement of its growth season, it was returned to the intermediate-house and freely watered.

It blooms during February and March. If grown in a pit, it is luxuriant, but does not produce flowers."

TRIMMING OLD APPLE ORCHARDS.—G. R. LAWSON, Canandaigua, West, inquires about his old orchard, as to trimming. If he wishes to renew the tops, give it a pretty good trimming in February, or before the sap begins to exude. New limbs start out profusely when the growing season comes on. If the tops do not need renewing, only thinning, trim in June or July; new shoots will start very sparingly, which rub off as soon as they appear. Give your trees a good mulching with chip manure, or rotten wood and leaves from the forest; such a covering is much better for fruit trees than barn-yard manure.—WM. HOWE.

AMERICAN PEACH IN ENGLAND.—The last number of the *London Florist and Pomologist* contains a finely colored illustration of the Early York peach. It was introduced into England a few years ago from this country, and appears well adapted to the climate, and "infinitely superior in every respect" to the Early Anne; which had previously been the best early peach raised in England.

TOMATOES.—A correspondent of the *Gardener's Monthly* says: "When the young plants are ready to transfer from the hot-bed to the open ground, remove all the buds at the axil of each leaf, except the two upper ones; this can be easily and rapidly done with a sharp pointed splinter of hard wood, without injury to the plant. Transplant carefully with a ball of earth into rich soil, and as

soon as well established pinch off all the lower leaves. Thus only two branches are formed, which grow with great vigor, and set a large amount of fruit, which is of much larger size than that grown by the usual mode. Many of mine, of the Large Smooth Red variety, weighed over two lbs."

CELERY.—The *Cottage Gardener* says:—"Do not by any means dig the trench for celery too deep; for to dig a ditch as deep as the cultivated soil, and then dig in some raw dung into an obstinate unfertile subsoil, and plant immediately, is very bad practice, and is the cause of so much celery running so many weeks in summer without making any progress. Subsoil requires fertilization, and until that is done the roots will not occupy it. Celery is one of the gross feeders, drinking in large quantities of liquid manure, like a toper. It, however, benefits much by it, and may be treated thereto with advantage during the growing season."

SHALL WE HAVE TO GIVE UP VERBENAS?—A correspondent of the *Country Gentleman* says the verbenas last year was attacked by blue lice on the roots. In other places the blight has prevailed for several years, and seems to be increasing. He thinks that we "shall soon be obliged to give up the verbenas as a bedding plant." We hope not, for there is no plant equal to it for this purpose. Last year, in this section, verbenas never were healthier or finer.

IMPROVED BLACK CAP RASPBERRY.—A correspondent of the *Wisconsin Farmer* says that from one acre of these plants, a year from planting, he raised last season twenty-five bushels of berries.

Ladies' Department.

ORIGINAL DOMESTIC RECEIPTS.

Contributed to the Genesee Farmer.

SOYER'S PUDDING.—Take slices of bread and spread them with butter, and lay them in a pudding dish with layers of any kind of fruit or preserves, and then cover with a nice custard, and eat with a sauce.

BAKED EGGS.—Put half an ounce of butter into a small tin pan; break four eggs in it, keeping the yolks whole. Throw a little pepper and bits of butter and salt over. Put into the oven till set, and serve. They will take about six minutes doing.

RHUBARB OR PIE PLANT PIE.—Every one does not know what a very great improvement a little molasses is to a pie-plant pie, but any one who will make the experiment will be pleased with the result. Currants or gooseberries mixed with the pie-plant add to the flavor very much.

GREEN PEAS AND PORK.—Put a piece of salt pork of about two lbs. into a pan with a quart of peas. Fill up with water, add two teaspoonfuls of salt, one of pepper, one of sugar and two onions. Bake for three hours. A little mint might be added. Three pints of large peas alone, with a little dripping, is as good as above.—SOYER.

GOOSEBERRY FOOL.—Put in a pan a quart of green gooseberries, with a wineglass of water and half lb. of sugar. Stew on a slow fire for twenty minutes; keep stirring. Put in a basin and whip a pint of cream. When the fruit is cold, mix with the cream and serve in cups or a hollow dish with pastry round it. Rhubarb and any of the small fruits may be done in the same way.

SALAD SAUCE (French).—Boil one egg hard. When cold, remove the yolk, put it into a basin and bruise it to pulp with a wooden spoon. Then add a raw yolk and a teaspoonful of flour, a small teaspoonful of salt, a quarter of pepper; then add half a spoonful of vinegar, stir it round, pour over a tablespoonful of oil by degrees, then a little more vinegar, and two more of oil, until eight teaspoonfuls of oil and three of vinegar are used. Season with half a teaspoonful of chopped onions, two of parsley and a pinch of cayenne. It will keep sometime if properly cooked.

STRAWBERRY SHORT CAKE.—This is an exceedingly delicious dish, although a little like painting the lily, for the strawberry is too luscious in itself to require any of the aids of cookery. We give it, not for the benefit of our dyspeptic readers,—for we warn them against it—but for those who can eat hot cakes for tea, and can not dispense with strawberries while they are in season. The cake should be made like soda biscuit, rather richer, but very light, and baked in a round tin about the size of a dinner plate. Immediately upon taking it out of the oven split it in three parts, and spread them with butter very thinly. Have your strawberries prepared by covering them with sugar. Spread a thick layer of these upon one of the slices of the cake, and pour over them the richest cream that you can procure; then add another layer of the shortcake and another of strawberries, as before.

Cover the whole with the remaining slice of the cake, a some cream and powdered sugar, and you have a dish which would tickle the palate of an epicure.

TIMOTHY TITCOMB ON WOMEN.—Women, in my apprehension, is the mistress, not alone of the melody of music but of the melody of life. Whatever it may be possible to do by cultivation and a long course of development is doubtful whether a woman would ever sing bass well. I am aware that she has the right, and the organs, but I question whether her bass would amount to anything whether it would be worth singing. When women tell me about their right to vote, and their right to practice law, and their right to engage in any business where usage has assigned to man, I say "yes—you have those rights." I never dispute with them at all. Indeed you see how I have put myself forward as the defender of these same rights; yet I should be sorry to see them exercised by the women I admire and love. It is all very well to say that the presence of woman at the ballot-box would purify it; but I have seen enough of the world to learn that all human influence is reciprocal and reactionary. Man and the ballot-box might gain, but women would lose, and men and the ballot-box themselves would lose in the long run. The ballot-box is the bass, and should be man's business to sing it, while woman should give him home melody with which it should harmonize.

BABY'S SHOE SOCK.—Use four needles. Cast 22 stitches on each needle of white split zephyr or the finest Sax two-threaded yarn. Knit 7 shells deep; put in the center cast on 12 stitches and rib back across 4 shells, making one row of holes through the centre for strings. Knit off 12 stitches on each end to complete the straps. Knit instep 7 shells in white; 7 double ribs for heel in color. Narrow off and take up on side 120 stitches; knit 7 double ribs to toe; continue to knit in the color all around double ribs, narrowing like a stocking and bind off.

SHELLS.—Seam three stitches; widen 5 at once to 8. Each time after the seaming, narrow the 2 first of the 8 and slip and bind the last 2, until the number is reduced to the original 8. Repeat this seaming 3 between.

'GOOD COOKING NOT INCONSISTENT WITH PIETY.—"Nothin' to say agin' her piety, my dear, but I know you well I shouldn't like her to cook my victuals. When man comes in hungry an' tired, piety wout feed him reckon. I called in one day when she was dishin' up Truman's dinner, an' I could see that the potatoes was watery as water. It's right enough to be speretual, I'm no enemy to that; but I like my potatoes mealy, I don't see as anybody 'ull go to heaven sooner for not gessin' their dinner—providin' they don't die the sooner as mayhap Mr. Truman will, poor dear man!"—*Abel Bede.*

THE Paris women are excited about an electric hat dress invented for the Empress Eugenie. It is a circle formed of globules of glass lighted by electric light, and set with diamonds, rubies and emeralds. It emits a soft effulgence as to light up of itself a dark room, and never put into general use will supersede the necessity of gas jets or wax candles. Every lady will be her own chandelier.

Miscellaneous.

OUR SENTIMENTS.

This longing after beauty,
This sighing after curls—
This chasing after Fashion,
Wherever fashion whirls—
[And all that sort of thing.]

May do for those who like them—
For those devoid of taste—
For those who barter diamonds off
For diamonds made of paste,
[And all other blockheads.]

But to a Wife who truly loves—
Who'd be what she appears—
Who'd spread a sunshine round the man
Who keeps away her tears,
[And brings the "taters" home.]

We'd whisper softly in her ear—
We'd grave it on her heart—
That knowing *how* to fry a stake
Beats Sentiment and Art
[Con-sid-er-a-ble.]

WOMAN'S COURAGE AND DEVOTION.—During the whole Lord Dundonald's arduous services and romantic adventures in South America, Lady Dundonald accompanied him, to soothe his anxieties, to sustain his hopes, animate his exertions, to share his dangers. One day, while he was in command of the Chilian fleet, his ship got becalmed under a battery, from which he was pelted with red hot shot. His men were seized with a panic and deserted their guns. If the fire from the shore was not returned, it would speedily become steady, sustained and fatal. He went down in the cabin where she said, "If a woman sets them the example, they will be ashamed of their fear; it is our only chance." She arose and followed him upon deck. The first object that met her eye was the battery, with its flaming furnaces—round which figures were moving, looking more like incarnate devils than men. A glance at her husband's features, and his "terrible" calmness reassured her. She took a match and fired a gun when he had pointed it. The effect on the shore was electrical; they returned to their posts with alacrity, and the battery was speedily silenced.

AWFUL COMPARISON.—Sir William Brown, a pious sort of a man, being at a parish meeting, made some proposals which were objected to by a farmer. "Sir, do you know that I have been to two universities?" "Well," said the farmer, "what of that? I had a calf that had two cows, and the observation I made was, the more cows he sucked the greater calf he grew." Sir William then heard the last of that.

CELEBRATED PHYSICIAN one day advised Voltaire to take up coffee, having just found out, he said, that it was a slow poison. "It must be very slow indeed," replied the French poet, "for I have been using it over sixty years, and am still alive."
He is made up, not of great sacrifices or duties, but of little things, in which smiles and kindness, and small attentions given habitually are what win and preserve the heart, and secure comfort.

Is not the stream of your life be a murmuring stream.

SOMETIME since a lady of rather inquisitive character was visiting our country seat. Among other places, she visited the jail. "She would ask the different prisoners for what crime they were put in there. It went of well enough till she came to a rather hard looking specimen of humanity, whom she asked, "What are you here for?" "For stealing a horse." "Are you not sorry for it?" "Yes." "Won't you try and do better another time?" "Yes; I'll steal two."

MUGGINS was passing up-street one day, with a friend, when he observed a poor dog, that had been killed, lying in the gutter. Muggins paused, gazed intently at the defunct animal, and at last said: "Here is another shipwreck." "Shipwreck! where?" "There's a bark that's lost forever." His companion growled, and passed on.

MR. PEABODY, the American banker of London, has resolved on erecting a number of houses for the working classes, who, through innumerable improvements in the metropolis, have been rendered almost homeless. For this purpose he is to give \$500,000, and also undertakes to pay the first year's interest of the money—\$25,000.

SMALL wits are great talkers, as empty barrels and shallow streams make the moist noise. It has been said that the smaller the calibre of the mind, the greater the bore of a perpetually open mouth. "I talk a good deal, but I talk well," said one of these men to Cardinal Richelieu. "Half of that is true," said the Cardinal.

PUZZLE.—Edward told Willie that he would sit on three separate seats in the parlor, where they were both by themselves; every seat he sat down in he would get up out of it, and give Willie an opportunity to sit in each vacant seat, but that Willie would not be able to sit but in two out of the three. How did he do it?

HOW KIND!—The following notice was posted, in 1860, on the estate of a noble Marquis in Kent: "Notice is hereby given that the Marquis of Camden (on account of the backwardness of the season) will not shoot himself nor any of his tenants till after the sixteenth of September."

WHILE we are coldly discussing a man's career, sneering at his mistakes, blaming his rashness, libelling his opinions—that man, in solitude, is perhaps shedding hot tears, because strength and patience are failing him to speak the difficult word and do the difficult deed.

IMPROVEMENT IN CHURNS.—The ordinary mode of churning butter in Chili is to put the milk in a skin—usually a dog's skin—tie it on a donkey; mount a boy on him with rowels to his spurs about the length of the animal's ears, and then run him four mile heats.

PUNCH says you know a gentleman by his gait—a black-guard by his Billingsgate. Why shouldn't a man be known by his gate?—the country people always say that a good farmer may be known by his fences, just as a villain is by his *of-fences*.

WHY is a miser like seasoned timber? Because he never gives.



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The Genesee Farmer for Six Months.

THE next number of the *Genesee Farmer* commences a half-volume. Now is a good time to subscribe. The half-volume, or six months, from July to December, inclusive, will be sent to any address for 25 cents.

On the last page will be found a list of Premiums which we offer to those who procure subscribers to the half-volume. Will our friends make an effort to induce their neighbors to try the *Farmer* for half a year? We are using our best efforts to make the *Genesee Farmer* worthy of the liberal patronage it enjoys. We have re-

peated assurances that no intelligent farmer can read a single number without getting some hint worth the cost of the entire volume. There are now thousands of farmers who are taking no strictly agricultural journal, and if our friends would present the claims of the *Genesee Farmer* to their neighbors, a large number would subscribe for it. It is so cheap that no one can object to take it on the score of cost.

The Premiums we offer are all good, and are well worth the effort it will cost to secure them. If, however, any of our friends do not wish to take advantage of the Premiums, we will let them have five copies of the half-volume for \$1.00, or 16 copies for \$3.00, together with a copy of the *Rural Annual and Horticultural Director* for 1862, to the getter up of the club.

We can still supply the back numbers of this year, and those who prefer it can have the whole volume at the same rates.

NOTES ON THE WEATHER, FROM APRIL 15TH TO MAY 15TH, 1862.—While the mean heat of the first half of April was one and a half degrees below the average for twenty-five years, that of the last half was one-third of a degree above the average; so that the mean of the month was one degree below that for twenty-five years. The temperature for the last half was 47.3°, and for the month 43.4°. The highest heat was 77°, on the 16th, and the lowest 32°, on the 24th. We had a hard frost on the 24th and 25th, but the buds of fruit trees were too close to be injured.

The rain was 1.89 inch in the month; a small quantity. Still, the earth is well watered. At Washington, D. C. the rain amounted to six inches.

The weather has been quite pleasant, and the early flowers, such as Trailing Arbutus, Spring Beauty, Silver leaf, Dutchman's Breeches, Blood-root, &c., appear about the usual time, as they are all wood's plants.

May opened with the same regular weather with which the month had just closed. The average temperature was 52.6° for the first half, which is nearly a degree below the mean for twenty-five years. The hottest noon was 77°, or the 12th; the coldest morning was 42°, at A. M. the 8th, and at sunrise of the 14th was 41°, a much white frost on roofs and plank-walks, and very little on plants. The flowers seemed not to be injured. Blossom, apricot on the 6th, common cherry on the 14th, peaches on the 14th, pears just showing flowers on the 15th.

Very little rain in this half month; the weather fair and the season fine for farmers, who have driven the business. Much clear and fine weather, and many bright nights. Vegetation rapid on 9th and 10th, and on the last two days; as forward as last year.

THE Provincial Fair of Upper Canada is to be held at Toronto, Sept. 23-27.

The list of Premiums for the New York State Fair can be had at this office.

Agricultural Items.

The New York State Fair will be held in this city Oct. 30th, and Oct. 1st, 2d and 3d. The indications are that it will be one of the best ever held in the State.

B. P. JOHNSON, Secretary of the New York State Agricultural Society, has gone to England on business connected with the American department of the Great Exhibition. He will be back in time to attend the State Fair.

The Homestead Bill has been signed by the President, and is now a law. Any citizen of the United States, or any person who declare their intention of becoming such, by paying the charges for surveying, &c., and who will reside on and cultivate it for five years, can have a farm of 160 acres of government land without charge.

At Mr. THOMAS RICHARDSON's sale of imported Alderbrook cows, in New York, prices ranged from \$140 to \$185 each. Some good Ayrshire cows, recently imported, sold from \$80 to \$140 each.

A pine spar, 230 feet long, has been sent to the Exhibition in London, from Vancouver's Island. It is to be exhibited in the grounds of the Royal Horticultural Society's Garden.

JOHN JOHNSTON, of Seneca Co., turned his cattle into a new bite of grass April 30th. This is earlier than he has ever turned his cattle out before on his farm, during 40 years.

B. LAWES, Esq., offers a silver cup, worth \$250, to the tenant farmer who shall grow the best ten acres of potatoes (Ruta bagas) in Ireland the present season.

Many new crops have been planted in Virginia this season. It is reported that other Southern States. We shall have to make up for our deficiency by extra crops at the North and West.

K. PHENIX, of Bloomington, Ill., the "Rochester of the West," writes us, May 19th: "Weather favorable; a good show for fruits, if not killed by late frosts."

Trials of Reapers, Headers, Mowers and Grain Binders will be held at Dixon, Ill., the coming harvest, under the auspices of the Ill. State Ag. Society.

The Great Wool Exhibition, open to all parts of the United States and Canada, is to be held at the next Ohio State Fair, in Cleveland.

A severe hail-storm occurred at McCallsburgh, Pa., May 21, which did great damage to fields of grain and to trees.

A law was passed by the late Legislature of this State preventing cattle running at large in the public highways. Another attempt is being made to introduce salmon from England into Australian waters.

There are complaints of the loss of lambs this spring, from a kind of throat disease.

The great International Exhibition, in London, was formally opened May 1.

Tobacco has been extensively planted in Missouri the present season.

The Ohio State Fair will be held at Cleveland Sept. 1st.

THE FRUIT-GROWERS' SOCIETY OF WESTERN NEW YORK.—The next meeting of the Fruit-Growers' Society of Western New York will be held at the Court House in Rochester, N. Y., at 10 o'clock A. M., on WEDNESDAY, the 25th day of June, 1862. A fine show of fruits may be expected.

By order of the Council.

C. P. BISSELL, Secretary, Rochester, N. Y.

The Markets.

OFFICE OF THE GENESSEE FARMER. }
ROCHESTER, N. Y., May 29, 1862. }

GRAIN of all kinds has again fallen from 3 to 5 cents per bushel. The better grades of white and red wheat are now considerably lower in New York than they were this time last year, while the poorer qualities are about the same price. Corn is about the same price as it was twelve months ago, while rye is from 10c. to 15c. per bushel higher, and barley from 9c. to 11c. higher than a year ago.

We have had reports of wet weather in England that injured the growing crops, but more recent advices report favorable weather and good prospects for an abundant harvest. In this country, as a general rule, the wheat crop looks very well. There is a large amount of grain of last harvest still in the country, and the prospects on the whole are not favorable to any great advance in prices between this and harvest.

Beans are scarce and in demand at full rates. Extra choice Marrows bring \$2.80 per bushel, and \$3 is asked. Mediums, \$2.40 @ \$2.50. Mixed, \$2 @ \$2.10 per bushel of 62 lbs.

Little is yet doing in Wool. The weather has been so cool that few sheep are as yet clipped, and in fact the great majority are not even washed. The trade has not yet opened, and it is not safe to speculate on prices. The buyers, as usual, are talking down prices. But there will undoubtedly be an unusually brisk demand for the clip. Money never was so abundant in this country as at present, and there are many who are willing to invest in wool. Besides, all the wool dealers last year made money, and will be disposed to buy largely again this season. Fifteen thousand lbs. of selected fine fleeces were sold in Boston a day or two since at 45c per lb. The probability now is that the price of the present clip will be about 40 cents.

Beef cattle are half a cent per lb. higher; milch cows and veal calves are in better demand. Hogs are also higher. Sheep have declined.

Butter is lower. There is a large supply of "grease butter" on hand. "Choice yellow" brings from 16 to 18c per lb., "Grease butter" from 7 to 8c.

Good cheese is scarce and in demand, but poor is plentiful. Choice new 7 1/2 @ 8c.

Eggs plenty at 9 @ 10 1/2 c per doz.

AMERICAN SHORT-HORNS IN ENGLAND.—We noticed some months since that SAM'L THORN, of Dutchess Co., N. Y., had sent several head of his celebrated Short horn cattle to England, and that they were sold there at a high price. Mr. THORN has sent out another lot, and these too were immediately purchased at high figures. One two-year bull, bred by JAMES O. SHELDON, of Geneva, N. Y., was sold to the Hon. Col. PENNANT, M. P., of Peshy Castle, Bangor, for 600 guineas, or over \$3,000! Another yearling bull sold for 400 guineas. The Duke of Devonshire purchased another at 400 guineas.

PARTIAL LIST OF GIFTS GIVEN AT THE METROPOLITAN GIFT BOOK STORE, No. 26 BUFFALO STREET, ROCHESTER, N. Y., DURING THE MONTH OF APRIL.—22 Gold and Silver Watches, 16 Engraved Silver Plated Ice Pitchers, 31 Silver Plated Vegetable Castors, 11 Silver Engraved Cake Baskets, 9 Silver Card Receivers, 26 Gold Lined Silver Cups, 13 Gold Guard Chains, 22 Gold Band Bracelets, 9 Silver Wine Pitchers, 16 Gold Lined Salt Castors, 6 Coffee Urns, heavily Engraved, Silver Plated, 8 Silver Tea Pots, 3 Silver Tea Sets, 137 Sets Tea and Table Spoons, 72 Sets Silver forks, besides over 1800 other articles of value. A Gift accompanies each book, varying in value from 50 cents to \$100. Descriptive Catalogues mailed free to any address upon application. The largest stock of books to select from in the city.

A NEW BOOK ON THE GRAPE.—Mr. JOHN PHIN, of this city, has written an excellent work on the culture of the grape in the open air. We have not space this month to notice it as its merits deserve, but would call the attention of our readers to the book, an advertisement of which will be found in another column. Every one interested in the culture of the grape will read it with pleasure and profit.

Look Out for the Tree Peddlers.

THE editor of the *Illinois Farmer* exposes some of the tricks resorted to by the tree peddlers in the West.

"A half a dozen men residing in Illinois or otherwheres, enter into an agreement to sell trees; they get up a catalogue headed the 'Rochester Nurseries, by J. Jones & Co.,' or the 'Dayton, Ohio, Nurseries of John Frank & Co.' With these catalogues they travel for orders, in the meantime one of the number looks after the trees to fill the orders. An Iowa nursery is purchased to supply the apple trees and other standard fruits, which are labelled to suit the wishes of customers; a row of Rambo or Sweet June going out under twenty different names. The ornaments are procured, in most instances, further east, sometimes at Rochester or Syracuse, the orders are duly packed—marked to destination with the imposing label 'From Rochester Nurseries,' or 'Dayton Nurseries,' as the case may be. Some of these packages go to the next station, some of them to the same village, and others longer distances. Central and Western Iowa thus purchase thousands of dollars worth of Iowa grown trees, while Missouri, Kansas, and the river counties of Illinois, come in for a share. The tree peddler is not confined to the east, for we have a good supply of them here, and we believe that the largest number of this class of petty swindlers are residents of the west, and deal largely in western trees.

"There is another class of men for whom we have more respect, and those are the agents of reliable nurseries both east and west. These men receive a commission in most cases and sell at regular prices, and the principals are responsible for the correctness of the varieties sent out."

There is no class of scoundrels for whom we have a greater contempt than dishonest tree peddlers. If you buy a galvanized watch, that will go only when it is carried, you are cheated by just the price paid for it. But if you buy worthless trees, you are cheated, not only out of the money paid for them, but out of all the labor and expense of cultivating them for years.

Farmers have it in their power to prevent these frauds. When a tree peddler comes into a town or village, purporting to be agent for the "Rochester Nurseries of J. Jones & Co.," let some of our readers drop us a line inquiring whether there is such a nursery firm, and whether the man is an authorized agent. We will cheerfully do all that we can to aid in exposing these shameful impositions.

There are many honorable men engaged in selling trees, and these should be encouraged. We are safe in asserting that our leading Rochester nurserymen are too honorable and high-minded to lend themselves for a moment to encourage impositions on the farmers and fruit growers of the country. Mistakes may occur in this business as in all others, but on the whole such firms as ELLWANGER & BARRY, H. E. HOOKER & Co., C. W. SEELYE, FROST & Co., JOHN DONNELLAN & Co., HOOKER, FARLEY & Co., and many others, undoubtedly furnish trees true to name and of good quality. Parties purchasing trees and plants from an authorized agent of any of these nurseries may depend on fair and honorable dealing.

DRAIN-TILE MACHINE.—Having witnessed the operation of one of the Drain-Tile Machines manufactured by M. A. LATOURETTE, of Waterloo, Seneca Co., N. Y., we confidently recommend it. We know of no machine that turns out tile so rapidly. We could wish that one or more drain tile machines were at work in every county in the United States and Canada. The advantages of underdraining are now universally admitted, and so far as our experience and observation extend, it is much cheaper to underdrain with tile or pipes than with stone. The labor of digging the drains is much less, and a properly laid tile drain will work much better and last longer than a stone drain, as commonly constructed. We believe those who have used tiles will bear us out in this assertion.

One of the drawbacks to the general introduction of underdraining, is the difficulty in many sections of procuring tiles at sufficiently low rates. They are a heavy article, and can not be transported long distances without great expense. It is therefore desirable that the tile should be made in the vicinity where used, and we do not but think it would pay any enterprising man, in almost any agricultural region, to purchase a machine and manufacture tiles. A supply will create a demand. And when once a farmer begins to underdrain, he rarely stops as long as he has a wet spot on the farm.

The cost of one of Mr. LATOURETTE's large machines is \$300. It makes all sizes and shapes of tiles and pipes from 1½ inches to 12 inches. We are assured that it will make 100 rods of 2-inch tile per hour, and from what we have seen of its operation we do not doubt the fact. Certainly it turns out tiles faster than any machine we have ever seen in this country or in England. The machine is constructed wholly of iron. It grinds the tile and turns out the tiles at both ends at one operation. It can be worked with one heavy or two light horses.

Mr. LATOURETTE also manufactures a hand drain machine, that turns out 400 two-inch tile per hour. Price \$175.

Those wanting a good machine can not do better than to put themselves in communication with Mr. LATOURETTE. We feel confident that his machine will give satisfaction. Underdraining lies at the very foundation of all agricultural improvement, and we are glad to learn from Mr. LATOURETTE that the demand for machines is greatly on the increase. He informs that in some places a number of enterprising farmers unite together in purchasing a machine, and we can not but think that such practice could be extended in many sections with great advantage.

THE GENESEE FARMER—MORGAN HORSE WANTED.—JAMES STIMSON, of St. George, C. W., writes us as follows: "My *Farmers*" for 1860 and '61 are bound in two vols., half calf, and are among the most valued books of my library. It would be a great pleasure to me to possess all the back volumes uniformly bound in half calf. One of the greatest recommendations of your paper, is the fact that each year makes a book of very convenient size—worth—well, the worth of it never can be told; also, as it does, in valuable information, suggestions, hints, the knowledge of which saves dollars upon dollars to such farmers as take the papers. The fact that you

out, for clubs of Canadian subscribers, premiums amount of \$150 during the first month of this year (till hold out to us great inducements to subscribe), that you are generous, and have the success of us at heart,—that Canadian farmers (some of them) are alive to their own interests—and that, in return for your efforts in their behalf, they are determined to support a purely agricultural paper, the best of its kind in America.

Do you know of any person owning a genuine Morgan which has a good pedigree and is a first-rate road-horse who could be induced to come to this part of the country with his horse next season on a venture?

Farmers of this and the surrounding counties are, of course, well supplied with horses for agricultural purposes; but when they come to sell their colts, they seldom get good prices, because said colts "can't go." They are not able to pay for a good horse, if they can be convinced that it will pay; and no better way of convincing them occurs to me than to persuade them to make the experiment just once.

In my opinion, such a horse as I have described, commanding us well recommended by you or some other visible parties, would be well supported. His owner certainly confer a great benefit upon our farmers, by proving their stock in the very point where it needs most susceptible of improvement."

KING AND SOWING SORGHUM SEED.—In the *Genesee Farmer* for April we alluded to some experiments made by Rev. A. MYERS, of Bucyrus, Ohio, in regard to the time of planting the Chinese sugar cane seed. Mr. Myers thinks that it should rarely, if ever, be planted before the 1st of May, and as it is essential, in order to make the plants fully matured, it becomes a matter of great importance to ascertain the best means of causing the seed to germinate rapidly after it is put in the ground. Mr. MYERS has kindly sent us his method of sowing the seed to accomplish this result, which is as follows:

Take the quantity of seed to be planted any one day, and having prepared boiling water pour it over the seed, so that all the seed may be equally heated; let it stand in the boiling water $1\frac{1}{2}$ minutes; then cool down by adding cold water to a luke-warm state. Enough boiling water must be poured on to swim the seed.

Good preparation to accompany the above is 1 lb. of lime and 4 oz. vitriol to 1 peck of seed.

With the above process I have brought the cane up to the rows were visible across the field in three or four days."

Mr. MYERS sends us the details of his experiment, which we sustain his opinion.

Inquiries and Answers.

PUMPKIN SEEDS.—I wish to know whether pumpkin seeds are good to feed to hogs, fat cattle and store cattle. Some of our neighbors say they are, and some say they are not. Will some of your correspondents give me some information on the subject?—D. B. N., *Union Mill, Erie Co., Pa.*

GENERAL INQUIRIES.—Will some of your numerous correspondents furnish information as to the following questions in the *Genesee Farmer*:

1.—How to make a good farm roller.
2.—Have you used the Wethersfield Seed Sower? If not, how can it be adjusted so as to drill seeds evenly, and at a constant distance apart, from the size of ruta baga to beans?

3d.—Is there no more easy or expeditious way of harvesting peas than mowing with a scythe, or "pulling them," as the Canadians call it?

4th.—Would kyanizing chestnut shingles have a tendency to toughen them, so as not to be so liable to split?

5th.—It would save many a trip to the village grocery, when some one is sick, and furnish a good, wholesome part of the farmer's dinner to be carried with him to the distant field, if every family knew how to make water and butter crackers.—B., *Cooperstown, Pa.*

CANADA THISTLES.—Will some of your correspondents oblige me by giving, through the *Farmer*, the best method of destroying or keeping under Canada thistles?—J. L., *King, C. W.*

ROOT CULTIVATOR.—Noticing in the May number of the *Genesee Farmer* an article on the cultivation of carrots, on page 149, from the pen of A. M. H., in which he says he has got up a hand cultivator which works admirably. Now, will A. M. H. be kind enough to furnish me with a description of said cultivator? I am desirous of availing myself of every facility for the cultivation of roots, in which I am engaged quite extensively.—JOHN KIEVELL, *Greenville, C. W.*

RENNET FOR SCOURS.—(WM. HAINES.) We have never tried this remedy, but it is well spoken of. Soak the rennet in warm water for twenty-four hours, and give six tablespoonfuls before the calf is fed. Cattle should have a larger dose. Milk thickened in wheat-flour is our usual remedy for mild cases of scours in sheep.

LIMING SHINGLES.—(JOHN HENSHAW.) The object of liming shingles is to increase their durability, and also to render them less liable to take fire. The process is not difficult, and fully compensates for the labor. It is simply soaking the shingles for a few hours in a solution of lime, salt, and lye from ashes. We do not know the proportions, but as the water will only take up a limited quantity of these ingredients, there is no danger of getting it too strong.

LETTING SHEEP GO UNSHORN FOR TWO YEARS.—(JOHN THOMPSON.) We have had no experience on this point. The only experiments that recur to us at this moment are those made by Lord WESTERN on British Merinoes. He let some of his sheep go unshorn for three years, and the result was that the weight of the wool from these sheep at the end of that time considerably exceeded the aggregate from an equal number shorn annually, the treatment of the two lots being in other respects the same. The quality of the fibre had not been impaired, while the greater length of the staple made it more valuable, because fitting it for a greater diversity of purposes.

SOILING MILCH COWS.—(R. T.) We do not think it will pay you. In the neighborhood of large cities, where land is high, it might be profitable, but in your case the saving of food and the increased quantity of manure, will not, we think, pay for the extra labor. One thing will pay. Provide a supply of green corn fodder for the cows when the pastures become dry. Sow it at once, in drills, three feet apart. Make the drills with a one-horse plow, and scatter the seed in the drills quite thickly, say forty grains to the foot, or about two and a half bushels per acre. Keep it clean by running a horse-cultivator between the rows. In this way, if the land is rich, you will get a great crop. This is a far better way than sowing broadcast.

Special Notices.

RHODES' SUPERPHOSPHATE.—THE STANDARD MANURE.—Manufactured under the supervision of the eminent manufacturing and analytical chemists, ROBERT B. PORTS and FREDERICK KLETT. The Sulphuric Acid is produced on a large scale at the works at Camden, N. J.

Guaranteed perfectly pure and free from all adulteration. Dr. EVAN PUGH, President Penn. Farm School, in his Report on Artificial Manures, published in *Country Gentlemen* March 27th, 1862, says: "RHODES' is the cheapest American superphosphate 'and if Mr. RHODES will sell under legal guarantee an article to 'contain even 14 or 15 per cent of anhydrous phosphoric acid in 'combinations soluble in water (with ten minutes boiling), his 'manure would deserve unqualified recommendation as one of 'the very best superphosphates manufactured in the world, and 'very much better than any manufactured in this country."

The following report of analysis of *one thousand* (1,000) tons RHODES' manure, made by G. A. LIEBIG, shows even higher results than Dr. PUGH requires;

BALTIMORE, February 28, 1862.

MESSRS. B. M. RHODES & Co.—Gents: I have analyzed the two samples of RHODES' manure which were averaged from a lot of one thousand (1,000) tons at the works, and sent to me by Messrs. PORTS and KLETT.

Sample No. 1 contains of phosphoric acid soluble in water 16.84 per cent, equal to 27.75 of bi-phosphate of lime.

Sample No. 2 contains 16.41 per cent, which is equal to 27.10 of bi-phosphate of lime.

Both of the samples came fully up to the standard qualities of your Superphosphate. Very respectfully,

G. A. LIEBIG, Ph. D.

Agriculturists and dealers apply to B. M. RHODES & Co., office 82 South street, Baltimore. Also, HENRY E. MORING, General Agent for New York and New England, 97 Pearl street, near Hanover Square, New York.

ADVERTISEMENTS.

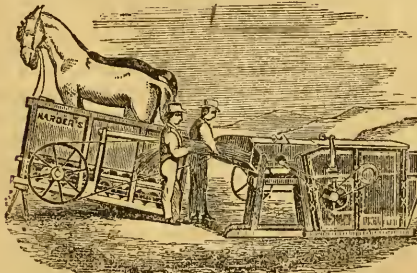
MOLE PLOWS—By J. DUNHAM, Ithaca, N. Y. 3—If

\$175 REWARD—For procuring three hundred paying subscribers to HALL'S JOURNAL OF HEALTH for 1862. \$1 a year. \$100 for two hundred subscribers. Dr. W. W. HALL, New York.

BUY THE BEST.

AT THE

EMPIRE AGRICULTURAL WORKS.



THE undersigned manufacture **CHANGEABLE ENDLESS CHAIN RAILWAY**

HORSE POWERS,

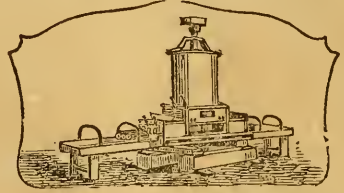
Combined Threshers and Cleaners. THRESHERS, SEPARATORS. WOOD SAWS, &c.

These Powers produce more Power with less elevation, and are operated with greater ease to the team than any other, requiring very slow travel of horses, being only about 1½ miles per hour when doing a good fair business, which is 400 to 500 bushels of oats per day, or half that quantity of wheat or rye.

The Thresher and Cleaner runs easy, separates the grain perfectly clean from the straw. Cleans quite equal to the best Fanning Mills, leaving the grain fit for mill or market, and is capable of doing a larger business without waste or clogging than any other two horse Cleaner before the public.

For price and description, send for circulars, and satisfy yourself before purchasing. Address **R. & M. HARDER, Cobleskill, Schoharie Co., N. Y.**

THE BEST TILE MACHINE.



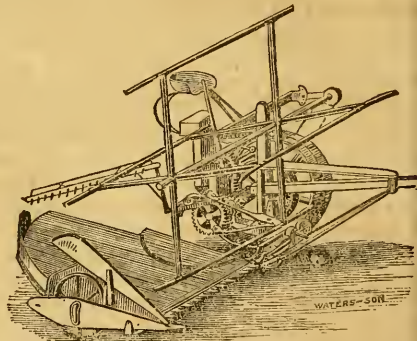
SMITH & WINEGAR'S PATENT.

With La Tourette's Improvements

THE above engraving represents a Drain Tile Machine which has been used for years, and, with its recent improvement, is undoubtedly the best and most durable Tile Machine in America. It performs the whole labor of grinding the clay, screening it to free it from gravel, and presses it in tile at the same operation, and may be propelled by either water, steam, or horse-power. It makes all sizes and shapes of tile and pipe, from 1½ to 6 inches, and moulds 160 rods of 2-inch tile per hour. The machine is simple in construction, durable (being made of iron), not liable to get out of order. In the great essentials of simplicity, capacity and durability it has no equal. It was awarded the First Premium at the Ohio State Fair in 1850, which was approved by a special committee of practical tile makers pointed by the State Board of Agriculture at the special request of interested parties, who were dissatisfied with the decision of the first committee.

For further particulars, or illustrated circular, address

A. LA TOURETTE, Jr., Agent,
Waterloo, Seneca Co., N. Y.



The New York Self-Raking Reaper and Mower

IS the best and most economical Harvester of Grain and Cereals yet invented. Only one hand is necessary to manage it, and it requires less labor to bind after it than after the best hand-rake.

It is simple and durable, not liable to get out of order, and saving in labor by the self-rake alone will pay for the entire machine before it is worn out.

All the gearing is hung on an iron frame, and the cutter-bar made of steel.

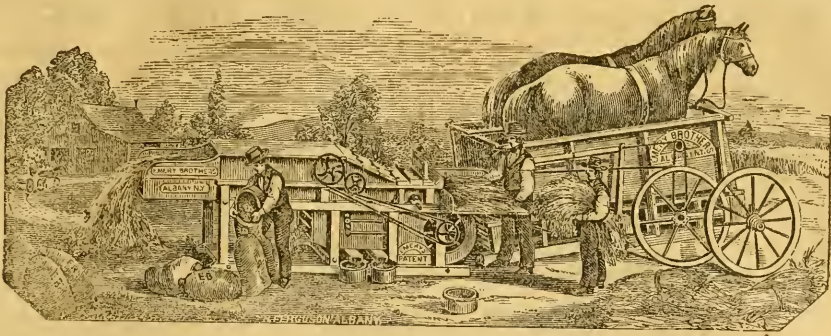
For Circulars and other information, apply to the manufacturers, **SLYMOUR, MORGAN & ALLEN,** Brockport, Monroe Co., N. Y.

NOW READY.

OPEN AIR GRAPE CULTURE

A PRACTICAL Treatise on the Garden and Vineyard Culture of the Vine, and the MANUFACTURE of DOMESTIC WINE. Designed for the use of Amateurs and others in Northern and Middle States. Profusely illustrated with New Gravings from carefully executed designs, verified by direct experience. By JOHN PINK, author of "Essay upon Open Air Grape Culture," to which was awarded the First Premium of the American Institute. To which is added a section of Examination of American Vineyard Practice, and a carefully prepared description of the celebrated "Thomery System of Grape Culture."

Price, One Dollar. Sent free of postage on receipt of price. Every person who has a grape vine should own a book. Address **D. M. DEWEY, Agent,** Rochester, N. Y.



ALBANY AGRICULTURAL WORKS, WAREHOUSE AND SEED STORE.

EMERY BROTHERS,
Nos. 62 & 64 State Street,
ALBANY, N. Y.

PATENTEES AND MANUFACTURERS OF

EMERY'S PATENT CHANGEABLE RAILROAD HORSE POWER.

ALSO, LEVER POWERS FOR FOUR, SIX AND EIGHT HORSES,

OF NEW AND SUPERIOR CONSTRUCTION, TOGETHER WITH

A GREAT VARIETY OF LABOR SAVING AGRICULTURAL MACHINERY.
AND GENERAL DEALERS IN IMPLEMENTS AND SEEDS.

HORSE POWERS.

It has ever been the aim of the Proprietors to make none but the first class of work, and always to use the best materials. In the construction of their Horse Powers they have endeavored to adapt them most readily and advantageously to the great variety of purposes required by the Farmer and Mechanic. During the harvests of 1860 and 1861 they have introduced and adopted the use of MALLEABLE IRON in the construction of the ENDLESS CHAIN of the Horse Powers, thereby lessening the weight over one-half, while the strength and durability is more than doubled as compared with the ordinary Cast Iron Endless Chains in universal use by other makers. Great advantage is gained by this lightness in handling and transportation, and in friction when in operation, while the malleable iron is much more expensive and machines more valuable, and no additional charge is made for the improved Horse Powers. The same considerations have guided them in the construction and adaptation of the various Machines made and sold by them, to be driven by the Power, in calculating their various velocities, gears, pulleys and gears, so as to enable them to operate to their maximum efficiency, which is the secret of their great success.

THRASHING MACHINES.

WITH SEPARATING AND CLEANING ATTACHMENT, combined and adapted for all kinds and conditions of Grain, &c. This machine is the greatest success in its line yet produced. It can be operated with two horses as easily, and with equal results, as the ordinary thrashing machine without the cleaning attachment; while its capacity adapts it equally well to the force of four or six horses. It will thrash perfectly clean from the straw, and clean the grain for market, without any wastage in any part of the process. It is complete in one frame—very compact and simple—runs light, still, and without any concussion in its moving parts. It has been very extensively used during the past three harvests, and its superiority over any others in the market established beyond question. And, considering its capacity and cost of construction, it is at least fifty per cent cheaper than any other similar machine in use.

CLOVER MILLS AND CLEANERS.

This is believed to be one of the best machines for the purpose ever made: it can be driven by one, two or more horses, at a high or slow velocity, and do equally good work, and with wet and dry as well as good condition of the clover chaff. It cleans the chaff, and delivers it fit for market at the same operation.

CIDER MILLS,

for Power and Hand use, with and without Press attached. These Mills and Presses are of a superior style and utility to any others in use.

Local Agencies solicited for the sale of the above Machines.

SAWING MILLS.

With Circular Saws, for cutting firewood, splitting boards, plank, &c., for fencing and building purposes; also with Machine Cross-cut for cutting logs for wood, shingles, staves, &c.; also Mills for making shingles.

STALK AND STRAW CUTTERS.

For Horse Power—a strong and durable machine, and adjustable to any length of cut.

FEED MILLS.

For grinding all kinds of Grain for Feeding, as well as corn in the ear when desired. Several sizes, and with or without sieves and bolts attached.

ILLUMINATED CATALOGUE.

The Proprietors have completed their new Catalogue—the most complete and beautifully illustrated work ever published by any manufacturer, embracing a great number and variety of finely executed and carefully prepared

ILLUSTRATIONS AND DESCRIPTIONS.

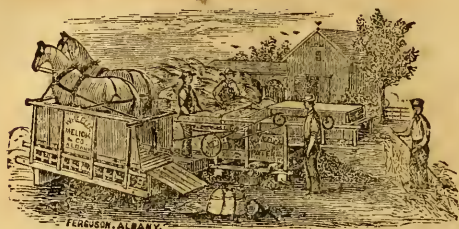
With ample references, as well as the Prices, Terms of Sale, Weight, Cubic Measurements, Capacity, Directions for Use, Durability and Warranty of their

Machinery, Implements and Seeds.

On receipt of three cents in stamps to pay postage, it will be sent to all applicants.

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New York State Agricultural Works.



WHEELER, MELICK & CO.,

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ALBANY, N. Y.,

MANUFACTURE WHEELER'S PATENT

RAILWAY CHAIN HORSE POWERS,

FOR ONE AND TWO HORSES;

LAWRENCE & GOULD'S PATENT RAILWAY CHAIN HORSE POWERS,

FOR ONE, TWO AND THREE HORSES;

Plantation or Lever Horse Powers,

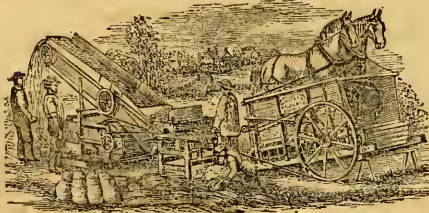
FOUR HORSE OR SIX MULE GEAR;

WHEELER'S PATENT COMBINED THRESHER AND CLEANER.

No. 1, 30 inch and No. 2, 26 inch Cylinder;

Barger's Patent Cleaning Attachment,

AS SHOWN IN CUT BELOW.



This Cleaning Attachment can be used with any ordinary Thresher, over or undershot, dispensing with the Shaker or Separator, and takes no more power to drive it than to drive the Shaker—to which we call the attention of farmers having Threshers without Cleaners—and can be attached without the aid of a mechanic.

OVERSHOT TRESHERS AND SEPARATORS— And other Farming Machines for Horse Power use.

Circulars containing List of Prices, and full description and Cuts of each Machine, with statement of their capacities for work, will, on application, be sent by mail, free.

Liberal Discounts are made to Dealers.

RESPONSIBLE AGENTS ARE WANTED in sections where we have none.

Address
WHEELER, MELICK & CO.,
ALBANY, N. Y.

Show and Sale of South Down Sheep.

PROVIDENCE permitting, my Twelfth Annual Sale of Yearling Rams, Ram and Ewe Lambs, will take place on WEDNESDAY, Sept. 3d, 1862.

Having used Mr. Webb's choice stock Rams the past four years on my flock, and imported the best Breeding Ewes from his flock. I can with confidence invite the attendance of all Sheep Breeders at said sale, when I hope to show size, thrift, wool and fine quality surpassed by no flock in any country. Please send for circular. Particulars about routes, &c., in August papers as well as in circular.

June—21

J. C. TAYLOR,
Holmdel, N. J.

SEEDS! SEEDS! SEEDS! BY MAIL. BY MAIL.

In Large Quantities by Express or R. R.

Extra Early Cedo Null Peas, best for Summer planting per qt. .30c.
 *Madras (edible pod) Radish per pkt. .10c.
 French Scarlet Turnip Radish, may be sown at any time with success during the summer, p. lb. 75c. p. oz. .10c.
 Black Fall or Spanish Radish per lb. 75c. per oz. .10c.
 *Rose Colored Chinese Winter do, splendid for late sowing, keeps well all winter " .20c.
 *Early Curled Silesia Lettuce, the best for succession and Summer crops " .20c.
 Fine Long Orange Carrot per lb. 75c. " .10c.
 Red Altringham do " 75c. " .10c.
 Corn Salad or Feticuous, excellent for Fall and Winter use " 75c. " .10c.
 *New Speckled Lima Beans (extra fine) per pkt. .25c.
 Horticultural Pale or Speckled Cranberry Beans per qt. .25c.
 Early Mohawk Bush Beans (the most productive) " .20c.
 *Fine Long Green Cucumber for pickles or table use per lb. \$1.50 per oz. .20c.
 *N. J. Hybrid Cucumber (extra long variety) " .30c.
 *West India Gherkin for pickling per pkt. 5c. " .40c.
 *Fine Green Curd Endive for fall and winter Salad " .20c.
 *True Hubbard Squash " .20c.
 *Honolulu Nectarine do " .30c.
 *Seven Year Pumpkin, very best late keeping sort, weigh 150 lbs. per pkt. .25c.
 *New White Japan Melon, the very earliest in cultivation, and of superior flavor " .25c.

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Early White Dutch, finest early variety per lb. 75c. p. oz. .10c.
 Red Top Strap Leaf for early or late use " 75c. " .10c.
 White Strap Leaf do do do " 75c. " .10c.
 Yellow Stone, fine Winter variety for family use " 75c. " .10c.
 Yellow Aberdeen or Scotch " 50c. " .10c.
 Robson's Golden Ball or Orange Jelly " 75c. " .10c.
 Waite's Eclipse, very productive " 75c. " .10c.
 English Green Globe " 50c. " .10c.
 English White Norfolk " 50c. " .10c.
 White French—We recommend this as the finest and most productive winter variety in cultivation either for family use or for field culture " 75c. " .10c.
 Improved Ruta Baga of our own growth " 75c. " .10c.
 Skirving's do " 50c. " .10c.
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 English Purple Top do " 50c. " .10c.

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*Beautiful Collections Phlox Drummondii (5 distinct sorts) 40c.
 *Beautiful Collections of Portulaca (7 distinct sorts) 35c.
 *10 Varieties of Beautiful Annuals 50c.
 *25 do do do \$1
 *50 do do do and Perennials \$2
 *100 do do do do \$4

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Any of the above varieties marked thus * will be MAILED FREE OF CHARGE on receipt of the amount annexed. For all the others, if required by mail, an additional 1 cent per ounce must be remitted.

J. M. THORBURN & CO.,

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TO THE UNEMPLOYED.

I CAN GIVE STEADY EMPLOYMENT to active young men to solicit orders for the

LITTLE GIANT SEWING MACHINE—Price, \$15. Hemmer, Gauge, Screw-driver and extra Needles. Will pay a liberal salary and expenses, or allow large commissions.

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GOVERNMENT Brand and Weight,
SUPERPHOSPHATE OF LIME.

BONE DUST,

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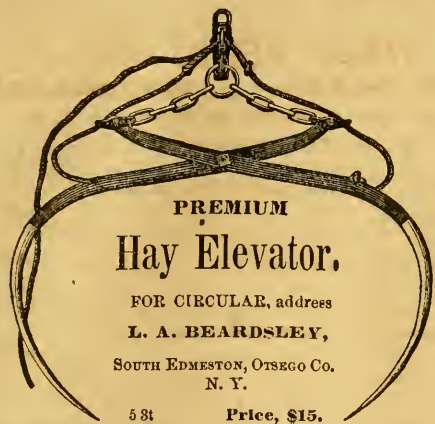
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A GOOD assortment, for sale by
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FOR CIRCULAR, address

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Price, \$15.

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THE following works on Agriculture, Horticulture, &c., may be obtained at the Office of the GENESSEE FARMER:

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Any of the above named works will be forwarded by mail post-paid, on receipt of the price specified.

Address **JOSEPH HARRIS, Rochester, N. Y.**

ITALIAN QUEEN BEES.

I SHALL continue to breed this season from my well known stock of Italian Bees, imported in March, 1861, by steamer New York. I guarantee the perfect purity of my Queens, being in possession of the

Only Six Live Original Italian Queens

in the United States.

To suit the times, I have reduced my price to \$7.50 for a Queen and a few hundred workers. For particulars apply to

C. WM. ROSE,

April—31 63 Exchange Place, New York.

WM. PATERSON'S

Improved Superphosphate of Lime,

MANUFACTURED and for sale at Division Street Wharf, Newark, N. J., and by the manufacturer's agents in this and other States.

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June—21

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JOSEPH HARRIS,

PUBLISHER AND PROPRIETOR OF THE GENESEE FARMER,

June 1, 1862.

ROCHESTER, N. Y.



THE VALUE OF STRAW FOR FODDER.

IN the last "Journal of the Royal Agricultural Society of England," Dr. VOELCKER gives the results of investigations on the "Composition and Nutritive Value of Straw." Like all Dr. VOELCKER's productions, it is a paper abounding with practical suggestions and scientific facts. It is the most interesting contribution to agricultural science that has appeared for some time. Many farmers, Dr. V. thinks, "form much too low an estimate of the feeding value of every kind of straw except pea-haulm." Perhaps this is true, but in this country we have thought that some farmers estimate it too highly, *as they feed little else!*

The value of straw as a fertilizing substance is certainly over estimated by most American farmers. In itself, it contains a very small proportion of fertilizing constituents. "Its chief value," Dr. V. remarks, "are as an absorbent of the most valuable portions of the excrements of animals, and as the best fixer of the ammonia which is always generated when excrementitious matters in contact with porous materials and a sufficient quantity of moisture enter into active fermentation. The action of straw in fixing ammonia may be thus explained. During the fermentation of dung the woody fibre of straw is converted by degrees into almic, humic, and similar organic acids, which impart to liquid manure or to the drainings of dung-heaps a more or less dark brown color. The gradual resolution of the nitrogenized part of the excrements into ammoniacal compounds proceeds simultaneously with the formation of organic acids belonging to the humic acid series. All the acids of that series possess great affinity for ammonia, in virtue of which they unite with the ammonia of the volatile carbonate of ammonia, which, without the addition of a proper quantity of litter, would evaporate from a heap of fermenting excrements. Straw thus furnishes the raw material for the production of a number of organic acids, which, by

laying hold of ammonia, preserve that most valuable constituent in our manure." In other words, straw does not contain much fertilizing matter itself, but it affords the means of preserving the ammonia produced by feeding out grain, oil-cake, clover hay, etc. Those who do not feed out these rich foods fail to avail themselves of the chief use of straw on the farm, so far as the manure heap is concerned.

The quantity of water in well harvested straw at the time it is stacked varies from 25 to 36 per cent. After stacking, a good deal of water evaporates, and soon sinks to 16 or 18 per cent. Straw is such an hygroscopic substance that the quantity of water it contains varies greatly according to the state of the atmosphere. Dr. V. found as little as 8 per cent. and as much as 19 per cent. of water in straw taken at different times from the outside of the same stack! He thinks that, on an average, straw contains about 16 per cent. of water.

WHEAT STRAW.

Two samples of wheat straw were analyzed, one fairly ripe, the other over-ripe. They contained, in 100 lbs.:

	Ripe.	Over-ripe.
Water.....	8.14	9.17
Substances soluble in water.....	8.77	4.51
Substances insoluble in water.....	83.09	86.02
	100.00	100.00

The ripe straw contained 1.10 per cent. of oil, while the over-ripe contained only 0.65; of gum, sugar and extractive matter, the ripe contained 6.28; the over-ripe, only 3.46; of soluble protein compounds, ripe 0.50, over-ripe only 0.06—that is to say, the ripe straw contained more than *eight* times as much as the over-ripe straw. From these results it would appear that the ripe straw is worth twice as much as that which is over-ripe.

BARLEY STRAW.

In this case two samples were also taken, one "not too ripe," the other "dead ripe." The former contained of substances soluble in water, 12.40, and the latter only 5.80 per cent. Here

again, the early cut straw is worth double that which is dead ripe. The barley straw on the whole is more nutritious than wheat straw. Dr. V. thinks that "barley straw not too ripe, is nearly equal to oat straw, cut in the same state of maturity." It is of softer texture and contains more albuminous matter than wheat straw.

OAT STRAW.

Three samples of oat straw were examined, one "green," another "fairly ripe," and the third "over ripe." In this case, as in the others, the degree of ripeness greatly affected the composition and nutritive value of the straw. Of soluble protein compounds, the green straw contained when dry, 6.56, the ripe 3.13, and the over-ripe 1.54 per cent.; of sugar, gum, mucilage and extractive matters, the green contained 19.08, the ripe 12.59, and the over-ripe 3.79 per cent. The total per centage of nitrogen in the dry state was: green 1.62, ripe 0.76, over-ripe 0.68.

These are very remarkable result. The amount of protein or flesh forming compounds in *green oat straw* is as large as in ordinary meadow hay. The greater portion of this matter, too, is found in a soluble condition and would therefore be easily digested. As the straw approaches maturity this nitrogenized matter dwindles down to less than one-half. "The question arises," says Dr. V., "what becomes of all the nitrogenized matter, which disappears with extreme rapidity when our cereal crops arrive at maturity? Although I have not made any special experiments with a view of ascertaining this point, it does not appear to me likely that this matter is all stored up in the grain; and I have not much doubt that, as observed by Messrs. LAWES and GILBERT, a considerable loss of nitrogen takes place in the growth of corn-crops, which loss is particularly noticeable when the crop arrives at maturity."

Of sugar, gum, and other matters soluble in water, not less than 19 per cent. are found in the green straw, against less than 4 per cent. in the over-ripe straw. These are the most valuable nutritive constituents, and the results show that the straw of oats cut green is four times as nutritious as that allowed to get over-ripe. The sugar, etc., of the straw is turned into indigestible woody fibre. The green straw contains only 25 per cent. of this substance, while the fairly ripe straw contains 32, and the over-ripe 42 per cent. of this indigestible matter.

Dr. V. suggests that where oats are raised for use on the farm, it would be well to cut them in

the green state and feed them out without thrashing. This is often done in England, and we have known a number of working horses kept in good condition all winter on this chopped green fodder, without any hay or grain.

PEA STRAW.

Pea-haulm is considered by English farmers the most nutritious of all straw, and the analyses of Dr. V. confirm this opinion. It contains 14 per cent. of soluble matter, $1\frac{1}{2}$ per cent. of nitrogen, and over $2\frac{1}{4}$ per cent. of oil. It approximates more closely to hay than any other straw.

Assuming that all are harvested in like degrees of maturity and condition, Dr. V. thinks pea straw best, oat straw next, then barley, and wheat last.

A FEW WORDS ON HAYING.

A CONSIDERABLE amount of hay has already been safely mowed away, but yet the great bulk of the hay crop of the country is still to be harvested. Its cutting, curing and gathering will form no inconsiderable portion of the labor of the farm during the first half of the present month. Fortunately, the general introduction of mowing machines and of "hay elevators" greatly facilitate the operations, and the work need no longer be dreaded. These machines, too, enable us to cut at the right time, and to secure the crop in the best and most expeditious manner.

The "right time" to cut, however, is a matter not fully determined. There are those who think that our ordinary meadow grasses should be allowed to stand till the seeds are nearly or fully ripe. There can be little doubt that this practice gives the largest amount of produce per acre. On the other hand, the great majority of experienced farmers are in favor of cutting while the grasses are in flower, or, at the latest, as soon as the seed is formed, and while it is in the milk.

Much has been written on this subject, and many experiments made to decide the question, but as yet we have no *certain proof* as to the best time to cut grass for hay. The reason of this is, that the old methods of chemical analysis employed to determine the amount of nutritive substances in grass cut at different times, are now thought to be inaccurate. The results, therefore, can not be relied upon. Till further experiments are made, we must rely on practical experience.

Our own *opinion* is that there is some danger of cutting grass too soon. We should prefer to wait till the seed is partly formed, rather than to cut while the grass is in blossom. On the other hand,

should prefer to cut while it is in blossom rather than to wait till the seed is even approximating to ripeness. *It is better to be too early than too late.*

It must not be forgotten, too, that when grass is cut early the aftergrowth is much heavier.

Many farmers contend that it is injurious to timothy or permanent meadows to *cut too close*—certainly not closer than an inch.

As to the best method of curing hay, there is no much difference of opinion. It seems to be decided, however, that if properly cured the less grass is exposed to the hot sun and drying the better. Hay is often dried too much, cured so that it will keep well in the mow, that all that is desirable. If cut with the machine in the morning after the dew is off, and left spread on the ground till one or two o'clock, it can be drawn into winrows with the horse-rake, and put into all cocks towards evening, and then put in the next day or the day after. If the grass is very heavy, it will need turning while lying spread on the ground, before it is ready to rake up.

CLOVER HAY.

As a general rule, clover hay is undervalued in this country. For sheep, there is no hay equal to it and even for horses, when properly cured, it is excellent.

To cure a heavy crop of clover is more difficult than to cure a crop of grass. At all events, it occupies more time. Clover is quite succulent. We have determined the quantity of water in many samples and found it to amount to from 75 to 80 per cent. It takes some time to get rid of this quantity of water, though in our dry, hot climate clover can be cured much more readily than in Western Europe, and especially in England and Ireland.

Clover, from its succulent nature and tender leaves, is more liable to scorch when exposed too long to a hot sun than timothy or other grasses. For this reason, it should be cured in the cock as early as possible. Another point to be observed is the saving of the leaves. These are the most valuable portion of the plant, and unfortunately they fall off easily when not carefully handled. For this reason, when cut with a scythe the clover should not be spread out. It must be allowed to remain in the sward, and be turned in the afternoon before being put into cocks. It is then left in the cocks till sufficiently cured, which will be in three or four days, according to circumstances. It is well to turn the cocks before drawing them in.

In England, where the weather is often very "catching," clover hay is mixed with straw in stacking, a thin layer being spread between the layers of clover. The dry straw absorbs the juices of the clover, and the cattle eat straw and all with a relish. A quart of salt to each load can also be scattered upon it to advantage.

Another method practiced by the English farmers in stacking clover hay may be mentioned. When the hay is so damp that there is danger of its heating excessively, a large four bushel sack is filled with cut straw and placed upright in the centre of the stack, the clover being placed round it. As the stack rises with each additional layer of hay, pull up the sack, and so on to the top. This will leave a chimney in the centre of the stack, through which the gases and moisture can escape. In this country, such a practice is seldom needed, but may occasionally be resorted to with advantage.

"NOW YOU LOOK LIKE A GENTLEMAN."

SUCH was the remark we heard a farmer's daughter make, a short time since, to her brother. He had been hard at work, and his clothes, and especially his boots, were covered with dust and dirt. His cravat was untied, his hat slouched, and altogether he presented rather an untidy appearance. He *felt* dirty and uncomfortable. He sat down, took up a paper, but seemed uneasy. At length a sudden idea seemed to strike him. He sprang up with resolution in his eye. Presently the blacking brush was heard in the woodshed, and the broom whisk played a lively tune on the dusty coat and pants. Shortly our young friend made his appearance, smart and clean, and bright as a button. "Now you look like a gentleman," said his sister, and truly. Better still, he *felt* like one.

And why should not farmer's sons look like gentlemen? There is surely nothing in their vocation to hinder. It is the "most honorable, the most healthy, and the most useful pursuit of man." Why should not those who follow it be gentlemen? In the majority of cases they *are* gentlemen. Why should they not *look* like gentlemen? It must be confessed that they do not. Don't be offended, for we are ever ready to "stand up" for American farmers, and especially for the *young* farmers of this country and Canada. Take them as a whole, they are second to none in industry, enterprise and general intelligence. Perhaps a *little* too self-important, but that we can excuse in young men otherwise unexceptionable. In intelligence, they compare favorably with the farmers

and farmers' sons of any other nation—but in personal appearance, No! When the late Rev. ROBERT NEWTON, the eloquent English Methodist preacher, himself a farmer's son, returned home from a visit to this country, in a conversation with a friend of the writer, he spoke highly of the intelligence of American farmers, of their ingenuity of their stalwart frames and strong arms with which they had cleared the forest and made it blossom as a rose; "but," he added, "they are rather a rough looking set of men."

This was twenty years ago. Since then the condition of American farmers has materially changed for the better. The heavy work of clearing the land has been accomplished. The rude log-cabin has given place to the neat frame house, and taste, refinement, and the comforts of high civilization characterize the majority of the homes of our rural residents. Still, we can not but think that our farmers son's neglect their personal appearance too much. We detest a fop. We have no admiration for a dandy. We have little respect for the young man who boasts more of his fast horses than of his skill in turning a straight furrow. We do not want farmer's son's to be gentlemanly (?) loafers; but we *do* want to see them pay more attention to their style of dress, to their habits, manners and general appearance.

Why need a farmer's boots be innocent of blacking? Why need he wear a slouched hat, and always have his pants stuck in his boots and his hands in his trousers pockets?

When JENNY LIND first landed at New York, and saw everyone dressed in fine broadcloth, she exclaimed, "What a country for tailors!" The extravagance of Americans in dress is proverbial. Even our farmers spend more for clothes than those of almost any other country, and yet they are poorly dressed! *Their clothes are not appropriate to their occupation.* What looks worse than black pants and dirty, unpolished boots? The Canadian farmer, in his grey homespun, is far more suitably clothed, and looks and feels better and more comfortable.

Perhaps we should apologise to the readers of the *Genesee Farmer* for writing on a subject not strictly agricultural. But we feel a deep interest in the social well-being of the young farmers of America. To us, their prospects are brighter than those of any other class or nation. They are destined to be the controlling power of the Republic. Cultivating their own land, independent if not wealthy, removed from the fierce excitements and temptations of mercantile life, it is to them we

look to give stability to the councils of the nation. How important, then, is it that the young farmers of America should neglect no opportunity to cultivate their minds and store them with useful knowledge!

Slovenly habits of dress are not favorable to mental improvement. The young man who, after he had cleaned his boots and brushed his clothes, "looked like a gentleman," sat down to a book with pleasure and profit. It was only an hour till bed-time. But what of that? An hour a day spent in earnest study will enable any young man of ordinary intelligence to lay up a large stock of valuable information. Had this young man not "spruced up," he would have been tempted to "take a smoke," and stupefy his mind with the fumes of tobacco, instead of stimulating it with the pleasant excitement always attending the acquisition of useful knowledge.

Every farmer should keep a record of his labors, receipts, expenditures, etc. This duty should be assigned to the farmer's son. Let the father talk over the matter with him, and let the son make the entries. The duty will soon become a delight, and the father will communicate his experience on the subjects coming under their notice. The son will feel a growing attachment to the pursuits of agriculture, and will almost certainly become a successful and intelligent farmer. But who can sit down to this work covered with the dust and dirt of the day's labor? Man is a bundle of habits and let the habit be once formed of paying a little attention to personal appearance and comfort, and it will soon become a pleasure, and occupy but a few minutes time.

MOWING MACHINES ON SMALL FARMS.

In one of the Legislative Agricultural Meeting which took place at the Massachusetts State House in March last, when the topic under discussion was that of "Farm Implements," one or more of the speakers stated that they thought mowing machine were profitable on large farms, but on small ones would hardly pay.

The *New England Farmer* thinks this an erroneous view of the matter. The farmer who has a large farm, is presumed to have capital corresponding with his acres, and to devote his whole time to the management of his estate. He is never *singly handed and alone*. If sick, or disabled in any way, he has strong backs and stout arms to depend upon, in his hired men, still to carry on the cultivation of the crops, or to secure the harvests. He can even visit the seashore or the mountains, and

be absent for several days in succession, without any special detriment to his farming operations. His corn and roots are hoed and kept in a flourishing condition, and his hay, and wheat, and rye crops carefully secured, so that he finds loaded scaffolds of golden grain, and bursting bays of aromatic hay, all safely housed, to gladden him on his return.

If he has used a mowing machine, all this labor has undoubtedly been greatly facilitated, and the crops have been economically secured. But suppose he has not availed himself of this labor-saving implement—he has had, and always can have, a force, in athletic men, equal to all the demands upon him. If there is any class of our farmers who can dispense with the mowing machine, and not most sensibly feel its absence, it is this that we have described. This class may be independent of the machine if it will, but not without loss.

Such, however, is not the case with the small farmer. His whole success is centred in his own judicious management, aided by his own muscular power. The hard jobs, as well as the easy, and all the duties that incessantly come both late and early, are also his. His sons may be in the army, factory, or behind a counter, all but the youngest, who is only fourteen, and yet has swung the scythe the two previous years.

Perhaps the farmer is considerably past middle life, and, although in good health, his cheek is furrowed, and grey hairs sprinkle his temples. It is true that the grasshopper is not a burden to him yet, but he does not feel like cutting his acre before dinner; he stops to whet oftener than he did twenty years ago, and rests longer in the shade of the big apple tree! In fact, his "mowing machine" does not work as it formerly did. There is plenty of will, but less power, and the work progresses slowly, while he looks painfully around to see what he can call in to his aid, to secure the crops which beneficent Heaven has matured for the support of his family.

The mowing machine comes to such a man as a real blessing. It enables him to keep up with his younger neighbors; to cut his crops in season and secure them without loss. He is relieved, encouraged, and feels comparatively young again, because he can carry on his farm as rapidly and successfully as he did in his younger and stronger days!

Perhaps the small farmer is in feeble health—not really sick, but unable to take the lead in laborious work—but with the aid of a mowing machine and a good horse-rake, he is more than a match for the

best five men in the country. But this is not all. Some how he feels better than he did. His appetite is sharp—he has gained flesh—stands up straighter than for many years before, and with these blessings another has come, more valuable than all, in a *cheerful, trusting, hopeful* spirit, which brings a new sunshine and joy to his whole homestead! Wonderful! And the doctor says, "All this has come because you do not work so hard!"

THE VALUE OF COMMERCIAL MANURES.

In the May number of the *Genesee Farmer*, we published an article on this subject embodying the results of analyses, made in the laboratory of Dr. Pugh, of several artificial manures. The results were not at all favorable to the majority of the manufacturers. As yet only two, so far as we have observed, have made any attempt to reply—the Lodi Manufacturing Co. and Prof. Mapes. There is nothing in the remarks of the former that we need reply to. They claim that they sell their proudrette, *in bulk*, at a price *less* than Dr. Pugh estimates it to be worth.

Prof. Mapes is very wroth. He assails Dr. Pugh's motives. He seems to think the statement that "*the greatest cheat of the whole* lot is that of Mapes' so-called Nitrogenized Superphosphate," is neither kind nor courteous! He further states that the sample of his manure analyzed could not have been genuine. He also asserts that the estimates of the commercial value of the constituents are erroneous. In proof of this, he says that the estimate of one cent per pound for the sulphuric acid "*is decidedly below its market value.*"

Let us see if this is the case. The sulphuric acid in Mapes' Superphosphate, and in other similar manures, exists in the form of sulphate of lime (gypsum or plaster.) One ton of this sulphate of lime or plaster contains 651 pounds of lime, 930 pounds of sulphuric acid and 419 pounds of water. In this city we can buy plaster for \$3.00 per ton. One ton contains 930 pounds of sulphuric acid. We get, therefore, 930 pounds of sulphuric acid for \$3.00. This is less than *one-third of a cent* per pound. Dr. Pugh estimates it at one cent per pound. This is equivalent to paying \$9.30 per ton for plaster, and throwing the 651 pounds of lime into the bargain! And yet Prof. Mapes tells us that this is "*decidedly below its market price!!*"

We are not surprised that Prof. Mapes asserts that the manure analyzed was not a true sample of his Superphosphate. Any manufacturer might

well feel ashamed of it. We cannot, of course, say that such was not the case. We have, however, every confidence in Dr. Pugh's honesty of purpose and in his ability to determine accurately the composition and value of the several manures examined.

A MODEL NEW ENGLAND TOWN.

The *New England Farmer* says that the town of DUNBARTON, Merrimack county, N. H., during the French, Indian and Revolutionary Wars, out of a population not exceeding 500 souls, sent 10½ soldiers into the field! It has now a population of about ten or twelve hundred souls, who have real estate to the amount of a quarter of a million of dollars, and have a million at interest! Their taxes are about forty cents on a hundred dollars.— They also own a fine town farm, which, for a long time, had but one inmate, a poor soldier of the war of 1812. The *poorest man* in town kills a good beef and a hog annually for the use of his family, and keeps one or two good cows! There is not a *lawyer* or *doctor* or *sheriff* in the town.— They have never dismissed a minister from the pulpit, and the people have not had a case on the docket of their County Court for more than ten years! It is said that no widow of this town ever had her "thirds" set off, and that wills are almost always settled by the parties interested. There are eleven schools in the town, usually taught by young women, and it has always been the practice to send the boys to college, who are "*quick* to learn."

The soil of this little republic is high, moist and warm, not frosty, and during extreme cold weather, the thermometer does not fall so low, by ten degrees, as in some other towns within ten miles of it. The people are nearly all farmers, and are remarkably healthy. Some of its citizens have lived to be more than one hundred years of age, many over ninety, and the "most of them have lived to be from seventy-seven to eighty-five!"— No liquor is sold in the town, except as a medicine. An agent was appointed at a salary of \$40, and the first year his returns showed sales to the amount of \$10. At a central point stand two splendid liberty poles, throwing the glorious Stars and Stripes to the breeze. It was on this very spot, where the boys rendezvoused and were inspected, and with their fowling pieces marched to join Gen. Stark, at Bennington, during the Revolutionary war. They had no music to cheer the parting from the loved ones they were leaving behind, and must have

gone in silence and sadness, had not an old gentleman by the name of Roach—honored be his memory—placed himself in front, and set up such a *whistle* as electrified the whole party, and put new mettle into their heels as well as their hearts!

Many other virtues and graces abound in this delectable town—this little Utopia, where the millenium is dawning! The men, of course, are excellent husbands, and the women exemplary wives. The daughters are from a healthy race, and are fair to behold, vigorous, and not "bad to take," when they can be caught. The young men—except the scholars—stick to the farms, take, and promptly pay for the newspapers they read, keep posted up in the affairs of the world, and are brave, hardy and intelligent—true descendants of the old stock of '76.

BEECHER ON FAST HORSES.

Rev. HENRY WARD BEECHER sometime since had a ride after BONNER's fast horses, and descants as follows:

"If a horse has had swiftness put into him, it is fair to give him a chance to develop his gifts. Of course, there is a bound. Reason in all things. Even in trotting, it is easier and pleasanter for some horses to go twelve miles an hour than for others to go three. They were made so. Does it hurt a swallow to go swifter than an ox? Why not? Because he was made so. It is easy to do the thing we were *made* to do easily. He does it, when wild, of his own accord. He does not lose the relish of speed even when domesticated.

"Take a fine fed horse, who, in harness, looks as if he were a pattern of moderation, a very deacon of sobriety, and turn him loose in pasture. Whew, what a change! He takes one or two steps slowly, just to be sure that you have let go of him, and then with a squeal he lets fly his heels high in the air, till the sun flashes from his polished shoes, and then off he goes faster and fiercer, clear across the lot till the fence brings him up. And then, his eye flashing, his mane lifted and swelling, his tail up like a king's sceptre, he snorts a defiance to you from afar; and with a series of rearings, running sideways, pawings and plungings, friskings and whirls, he starts again, with immense enjoyment, into another round of running. Do you not see that it is more than fun? It is ecstasy. It is horse-rapture!"

"I never see such a spectacle that I am not painfully impressed with the inhumanity of not letting horses run. Fastness is a virtue. Our mistaken moderation is depriving him of it. I drive fast on principle. I do it for the sake of being at one with nature. To drive *slow*, only and always, is to treat a horse as if he were an ox.— You may be slow, if you think proper. But your horse should be kept up to nature. He would have but two legs, if it was meant that he should go only at a 'go to meeting' pace. He has four legs. Of course, he ought to do a great deal with them."

THE POTATO BIRD.

Our esteemed German friend HOCHSTEIN, whose admirable drawings of trees, fruits, &c., have so often embellished the pages of the *Genesee Farmer*, sends us the following description of a Potato Bird:

It is a new genus. You will find no figure of this "rara avis" in the most celebrated works on ornithology, like Audubon's, Prof. Gould's, &c.—It has proved to be a very fine bird, though, one always on the wing to do good service,—a solution of that grand problem, the "perpetual motion"; with, of course, the only additional qualification that, as long as it is lasting, and the body, head, wings and tail keep together, it is perpetually moving. Its name is given by good authors as "Potato Bird," and it belongs to the interesting family of the Scarecrows.

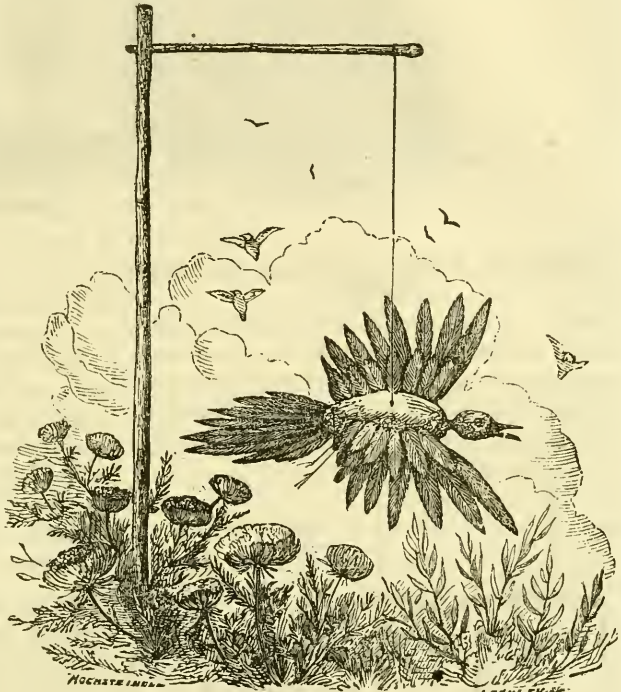
HABIT.—It lives in the cheapest possible way, viz: on air,—which involves another important point—it don't cost its owner a bit to keep it alive.

THE GREAT PURPOSE.—The business of its existence is to protect the seed plants of turnips, cabbages, &c., from the depredations of small birds, like the Yellow bird; and it fulfils its destiny very faithfully in scaring away those winged, cunning chiefs, those pests of the garden and farm, perhaps as effectually as the royal eagle, the swift falcon, or the gloomy, wise-looking owl. Although it is a mocking bird, still it is only an artificial bird. That is the secret; and no doubt every ingenious reader has found it out by this time—and here follows the receipt to manufacture one:

COMPOSITION.—One large potato, say a big Pinkeye, adorned with feathers of any kind—those of a defunct chicken do very well—stuck in in such a way that the the largest feathers form the point of the wings, the tail being fanlike and spreading. The head is a small potato; the neck a little stick connecting the head and body; the bill two quills or sticks; legs, ditto. In the body, small feathers may be inserted ad libitum. A pole eight or ten feet in length is set in the ground between the seed plants, to the top of which is attached a smaller piece in a horizontal position. At the end of this a strong twine about fifteen feet long is fastened, which passes through the body of the potato bird in the middle—and then the kite is ready to fly and to scare the *native* birds.

In these our days of patent inventions, many a mercenary soul given to speculation at the expense of his cotemporaries, would have tried to get a patent on such a grand and useful invention; but the inventor bids his fellow readers of the *Genesee Farmer* welcome to share the profits, and if this silent messenger of love and protection for their

fields and gardens proves himself useful in saving their seeds by the ounce, pound, or even hundred-weight, expects nothing in return but their silent thanks. And if they have no serious objections, something more on kindred subjects might follow, illustrated by his pen and pencil. Besides, he detests the possible danger of a formidable law suit with some insidious individual who might claim a prerogative to the invention, on the old adage that there is "nothing new under the sun." *Nil novi sub sole.*



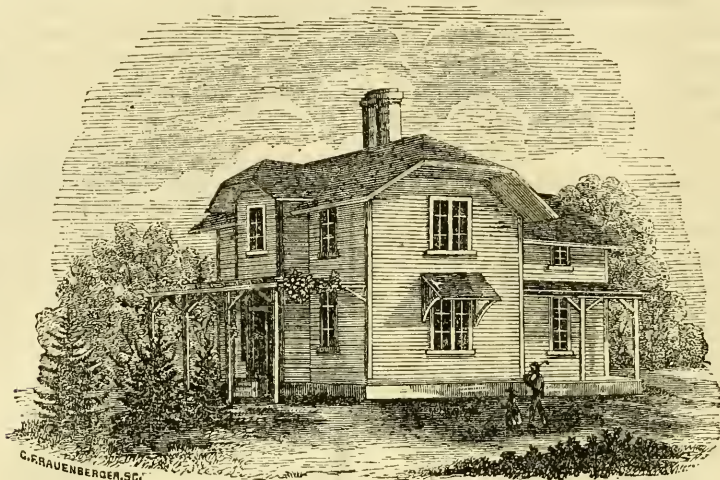
THE POTATO BIRD.

LIQUID MANURE.—S. Edwards Todd, in one of his many interesting and instructive communications to the *Country Gentleman*, remarks:

"I have known farmers to haul liquid manure to the corn field, and pour about a pint of it around each hill when the corn was more than a foot high. But such manure must be applied with care, for it will injure the corn, and perhaps kill it, if it be sprinkled on the leaves.

"My daughter applied a little liquid manure to our tomato plants, and killed them."

Very likely. We once knew a gardener who had a choice lot of cabbage plants that he wished to push forward as much as possible before transplanting. He took a quantity of fresh liquid from the cow stable, and watered them with it. *Every plant died.* The fact is that fresh urine is injurious to plants. It should be fermented before it is applied, and also, be diluted with twice its quantity of water.



PLAN FOR A SMALL FARM HOUSE.

A DESIGN FOR A THOUSAND DOLLAR FARM HOUSE WANTED.

We should feel obliged if some of our readers would furnish us with designs for a farm house, costing not to exceed from \$1,000 to \$1,500. To set the ball in motion, we here annex a description of a house built for a gentleman in Wisconsin :



GROUND FLOOR.

CHAMBER FLOOR.

FIRST STORY.—1. Rustic porch covered by a vine
2. Entrance or vestibule.
3. Family room, 15x16 feet, with fireplace.
4. Alcove or recess for a bed, with a closet.
5. Living room, 15x16 feet.
6. Pantry. 7. Oven.
8. Shows how a kitchen may be added, with a rustic verandah on the side.

To this kitchen may be added a scullery, dairy, etc., as occasion requires.

9. Staircase, with cellar stairs underneath.

SECOND STORY.—The stair landing is over the oven; a large closet over 4, between which and the chimney is a door opening into a large chamber

over 3. A passage next the stairs leads to a small bed-room over 2, and a partition divides the space over 5 into two chambers.

When the kitchen wing is added, the second story will furnish two more chambers, both of which may be entered from the stair landing, by doors on each side of the kitchen chimney. This arrangement supposes the chamber divided by a partition running from the chimney to the rear end of the room.

SPIRIT OF THE AGRICULTURAL PRESS.

THE SEX OF EGGS.—M. GENIN lately addressed the Academie des Sciences on the subject of "The Sex of Eggs." He affirms that he now is able, after having studied the subject for upwards of three years, to state with assurance that all eggs containing the germ of males have wrinkles on their smaller ends, while female eggs are smooth at the extremities.

CALIFORNIA WHEAT AT THE GREAT INTERNATIONAL EXHIBITION.—The London *Agricultural Gazette*, in notice of the agricultural department of the great International Exhibition, says :

"The finest Wheat shown at any of the stands, and the finest that we have seen in the building, is the exquisitely beautiful sample of 'Wheat from California,' shown by Mr. W. E. Chambers, of Mark Lane, at stand 708, of pure cream color, every grain like its neighbor, a short small, thin-skinned, full-bodied berry, with no stain or deeper tinge on any part of its surface, and weighing 6 pounds a bushel—this specimen may be taken as an example of what Wheat ought to be. In the same case are specimens of a good six-rowed Barley in ear."

"Is the Hog a Grazer?"—The *Maine Farmer* has known a hog to live all the year round and keep in good order, on grass in summer and clover hay in winter. Green clover is undoubtedly good for hogs, but we did not know that they would thrive on clover hay. A correspondent of the *Country Gentleman*, however, gives an account of twenty-five shoats that were provided with warm and comfortable quarters and fed on clover hay alone, and says they were in better condition than many shoats having grain and no shelter.

A GREAT CABBAGE STORY.—The *California Farmer*, of April 11, says: "We know a case where a farmer having a good lot of cabbage is now selling them at \$7 to \$8 the hundred lbs.; from this crop alone he will realize some \$12,000 to \$15,000 for cabbages raised the past autumn."

TO KILL LICE ON STOCK OF ALL KINDS.—A correspondent of the *Country Gentleman* says: "Take one ounce of 'cocculus indicus,' which should be bought of any druggist at from ten to twelve cents per pound, and steep it in one gallon of water, and apply as is recommended for tobacco extract. It will be found quite as effectual, and much more pleasant to use. I have used it with unvarying success for killing lice on canary birds. Dip them in, keeping the head out, and soak well. It is perfectly safe."

TANNING SKINS.—A correspondent of the *New England Farmer* gives the following method of tanning fox and coon skins: "If the skin is green from the body, scrape all the flesh from it, then pulverize equal parts of saltpetre and alum, and cover the flesh part of the skin with it; put the flesh in in such a manner as to hold the brine when dissolved, then lay it away in a cool place,—say the cellar—and let it lay four or six days; then cover the flesh part with soft soap, and wash off clean with water. Dry in the shade, roll and pull occasionally while drying; then roll and pull until soft and pliable."

HUNGARIAN GRASS.—It is some four or five years since this grass was introduced, and each succeeding year a larger breadth has been sown. It is now, says the *Prairie Farmer*, "one of the standard crops of the West." It is a prolific grass, yielding considerably more per acre than either the prairie or tame grasses, and is superior to the common Millet, though not differing materially from it in its nature. Its seed is more oily, and consequently a heavier feed than Millet, is a somewhat more vigorous grower, and hence a surer crop. Indeed, so deep-rooted is it, that severe drouth does not affect it in the least, and it may be sown upon the highest and dryest soils without fear of failure. All kinds of stock, cattle, horses, sheep and hogs are extremely fond of it, and when fed judiciously, we have yet to hear of an instance where any injurious effects have followed its use. Doubtless many horses have been injured, perhaps killed outright by its use, but these cases, to the best of our knowledge, are where the seed has been given immoderately, just as over-feeding of any heavy grain will produce disease in animals.

MAGNITUDE OF THE EGG TRADE.—Few have any idea of the magnitude of the egg trade carried on between the city of New York and the Western States. The *New York Tribune* gives the following as one item in the business:

"One wholesale produce commission house on Friday, May 16th, received 320 barrels of eggs; 165 barrels were consigned by one man in Peoria, Illinois, and all came forward in one shipment. These were sold at buyer's risk, at 8½ cents a dozen packers count—the best fresh eggs counted out being worth, say, 10 cents a dozen.—The same house had previously received two shipments of 120 barrels each from the same man, and sold them at 10½ cents a dozen. On being advised of the last shipment, the house telegraphed the shipper that eggs had declined

to 9 cents or less, asking instructions. The shipper replied, 'Go ahead; it is your business to sell eggs. I will take care of my end of the line. Lots of hens in Illinois; plenty of corn and eggs are cheap.' Decidedly they must be, to pay cost, freight, commission, and a profit on 8½ cents a dozen. Illinois is a great country. Great on eggs, and New York is a mighty place for eating all that Illinois can produce."

HORSEBACKS.—The *Maine Farmer* says: "It is not a little remarkable, that what with us are denominated *horsebacks*, and which are found in considerable numbers in our State, seem to be a peculiar characteristic of our own soil, as they scarcely occur out of the State, and nothing at all similar to them described out of New England, unless it be the escars of Northern Europe. The general features of these *horsebacks*, are a narrow ridge of coarse sand and gravel, attaining a height of from thirty to forty feet, situated in a level country, with sometimes an undulating summit, the extreme ends being generally of the same elevation above the ocean."

RELATIVE VALUE OF FOOD FOR MILCH COWS.—The *Scottish Farmer* observes: "Several French and German chemists estimate the relative value of several descriptions of food for milch cows as follows: That 100 pounds of good hay are worth 200 pounds of potatoes; 460 pounds of beet root, with the leaves; 350 pounds of Siberian cabbage; 250 pounds of beet root, without the leaves; 250 pounds of carrots; 80 pounds of hay, clover, Spanish trefoil, or vetches; 50 pounds of oilcake or colza; 250 pounds of pea straw and vetches; 300 pounds of barley and oat straw; 400 pounds of rye or wheat straw; 25 pounds of peas, beans or vetch seed; 50 pounds of oats; or 500 pounds of green trefoil, Spanish trefoil or vetches."

CHEAP SUMMER FEED FOR HOGS.—A correspondent of the *Homestead* gives the following as an economical manner of summer feeding hogs, practiced by one of his neighbors. SIMON BROWN, of the *N. E. Farmer*, says he has practiced this plan for many years, and finds it an excellent one: "A few rods of grass-plot convenient to the pen is reserved for this purpose, and is manured by the weekly suds from the wash-room. Commencing at one side of the plat, a large basket of the thick, short grass is mowed each morning while the dew is on, and a part given to the swine at each feeding three times a day. By the time the last portion of the grass is cut, the first is ready to be cut again, and in this way the ground is mowed over many times during the summer, while the grass is kept short, thick, tender and sweet. It keeps the hogs in a healthy growing condition—they are fed with as much as they will eat every day, and but little additional food is required besides the slops from the kitchen."

A STORY OF A CHICKEN.—The *Boston Journal* vouches for the truth of the following story: A friend who keeps poultry had two hens who insisted upon setting on one nest. The result was not altogether favorable, although, after awhile, the bipeds managed to divide the eggs.—Only one chicken was hatched from the whole nestful. Both hens undertook the duties of mother to this chicken, and were quite motherly for a week, when both took it into their heads to go to roost at night, utterly regardless

of the loud "peep, peep" of the deserted chicken, which could not follow them. The little fellow managed to fly upon the top of a barrel, where, curiously enough, the old cock—the head of the family—took compassion upon him, and roosting on the barrel, sheltered him under his wing. This he now does nightly, the hens taking care of the chick in the day time, which is thriving well under this excess of maternal and parental care.

A WRITER in the *Dollar Newspaper* who has been very successful in raising turkeys, manages them as follows:

"First, I never allow a turkey to set until about the middle of May. They will commence to lay early in April, but I take their eggs away as fast as laid, and keep them until they lay their second batch, which will be finished about the second or third week in May. I then give her some eighteen or twenty eggs, and let her set.—Along about the middle of June she will be off. I then take her, put her with her young on an old barn floor, or other out-building that is dry, and feed on curd and cracked corn. Curd is the best for a *continual feed* when the farmer has plenty, but cracked corn or coarse meal, mixed with lobbared milk, will answer about equally as well. After they have been indoors for two or three days, or long enough to get fairly on their legs, (for the turkey is the weakest of all fowl when young,) I let them out, providing the weather is fine, and *there is no dew on the grass*. The great reason why people can not or do not raise turkeys is, because they turn them out as soon as hatched, and about the first *wetting* they get they keel over and die. To succeed in raising turkeys, therefore, you must keep them dry until at least ten weeks old, when they will stand as much water as other fowls—geese and ducks excepted. Of course, they must be driven in every night, and on all occasions when a storm is threatening. The reader will at once perceive there is *care* in all this. But when 'Thanksgiving' and 'Christmas' come—to say nothing of all the Sunday roasts during the winter, our care is lost in enjoyment, and we come to the conclusion that 'turkeys are worth raising.'"

MANAGEMENT OF HONEY BEES.

DOUBLING SWARMS OF BEES.—July is the season to double or treble swarms of bees. Long experience teaches me that it is poor policy to attempt to winter weak families. I make it a rule to double all swarms that issue in July, that are small, or even medium size.

Swarms may be joined when one is three days old, but it is not advisable to go beyond that time. I unite them by bringing the latest swarm, *after sundown*, in front of the older one, or one issued the same day, spread a sheet or blanket, set the hive not to be dislodged upon it, raised in *front* an inch or more, then quickly dislodge the other swarm to fall directly in front of the first hive, into which they will enter, and in the morning they will be quiet, and will work harmoniously together. A few bees will generally be killed, but not enough to be of much consequence.

ITALIAN BEES—REPLY TO MR. ROSE.

The April number of the *Genesee Farmer*, containing a criticism by Mr. Rose on my remarks on Italian bees, was mis sent and came to hand late in May. I am not disposed to spend much time in replying to correspondents who differ with me in their views; yet I think a few remarks on the assertions of Mr. Rose will be of interest to the bee-keeping readers of the *Genesee Farmer*. Mr. R. says:

"I would here, for the public good, demand of Mr. MINER proof that the workers can, 'at best, be only half-

breeds." This shows that he is either ignorant of the physiology of the bee, as given by the highest modern authorities, or that he discards their views. I never part with a queen until I have seen her progeny, and know them (the progeny) to be *full blooded*. Owing to the distance queens fly when on their 'first excursion,' it is necessary, in order to insure a certainty of having a majority of Italian queens purely impregnated, to have command of all the native bees for at least two miles distant. This, of itself, involves considerable trouble and expense, which, together with all the expenses—first cost and importation—is such that it must take several years for an importer to realize from sales at any price his first season's outlay, if he ever does it."

If we place a *pure* Italian family of bees in an apiary of black or native bees, the young Italian queens on sallying out to meet the drones for impregnation would be very likely to effect their object with their native drones, and their progeny would thus become "half breeds." If, however, the union of the queens and drones *happens* to occur with the drones of the pure Italian family, then, I admit, that the progeny of these queens for life would be purely Italian.

Mr. Rose claims that, in order to secure *pure*, or, as he says, merely a "majority" of pure Italian queens, it is necessary to remove all native bees within the distance of *two miles*. Even by effecting such removal, if it were practicable, it would only ensure a "majority" of pure families of Italian bees, which shows that this system is not reliable.

But who has ever purchased all the native bees within a circle *four miles* in diameter, in order to rear pure Italian bees? I venture to assert that it never was, nor never will be done, in a thickly settled country. Has Mr. Rose done it, as he would have the public inter? If he will make an *affidavit* to that effect, I will pay the expense thereof, and publish it in the *Farmer* for his especial benefit. Now, Mr. Rose, here is a chance to *prove* the purity of your Italian bees, without cost to you, and when the matter shall be published, at *my expense*, it will aid you materially in the sale of your queens.

But how does Mr. Rose know that a distance of *two miles* will ensure even a "majority" of pure queens? No one has ever proved such an allegation. Bees fly frequently four to five miles. I admit that, in the general pursuit of their stores, about two miles is the extent of their flight. It is not at all certain that the removal of native bees within two miles would secure a "majority" of pure Italian queens; hence I consider what Mr. Rose says on that point simply *hypothetical*, wanting a practical test.

Will Mr. Rose also engage to remove all the wild bees in the forests, within two miles of Italian queens? If so, I think he would have a difficult job on his hands in many sections of the country.

What I said on Italian bees in the *Genesee Farmer* was simply as the case *appeared to me*. I did not claim infallibility, and if they really are superior to our native bees, I hope to see evidence of it that is *reliable*—not mere assertions, based on no particular experience. It is time now for American bee keepers, who have purchased Italian queens, to send in accounts of their success to the press. Who will give us facts, in black and white, favorable or otherwise?

T. B. MINER.

Clinton, N. Y.

THORLEY'S FOOD FOR CATTLE.

SOME time since our opinion was asked in regard to this compound, and we replied that, while it contained nothing detrimental to health, and while it was undoubtedly a highly nutritious food, yet the price charged for it was most extravagant, and that if cattle needed "condiments" or "cordials," they might be purchased from the druggists and mixed with oil-cake, corn meal, etc., at greatly cheaper rates than those charged for the same articles in Thorley's Food for Cattle.

The question of condimental foods has elicited much attention in England, and recently formed the subject of discussion at a stated meeting of the Royal Agricultural Society. Full reports appear in the *Mark Lane Express*, *Agricultural Gazette*, and other London papers, but as they are too long for our columns, we avail ourselves of a resumé of the discussion in the Boston *Cultivator*, the editor of which, SANFORD HOWARD, Esq., has spent two summers in England, and is able to give valuable information on this and all other subjects connected with agriculture.

The preparation of compounds under the name "cattle food" has been carried on in England of late years to great extent, and so far as relates to the vendors of the articles, much to the advantage of some of them. The most popular of these compounds has been extensively advertised under the name of "Thorley's Food for Cattle." It has found its way to this country—agencies for its sale having been established in New York and other American cities. But as yet the sale of the "food" in this country has not been on a very great scale. If the article possesses the virtues which are claimed for it by its manufacturers, our farmers might make use of it advantageously.

Notwithstanding the extensive use that has been made of it in Britain, there has always been considerable difference of opinion as to its real value. To bring the matter as nearly as practicable to a demonstrative test, Mr. LAWES, of Rothamsted, instituted, some time since, a series of experiments in feeding sheep and swine with "Thorley's food." The results of these experiments were that more of other food was required to produce a given amount of increase when the animals received a certain quantity of the artificial food, than when they had none of the latter. The report of these experiments attracted considerable attention. After much private discussion, the general subject of cattle condiments was taken up by the Council of the Royal Agricultural Society, and ably and thoroughly discussed at a stated meeting.

The testimony thus elicited varied much in regard to the effect produced on animals by Thorley's food. Mr. T. BEALE BROWN, a well known farmer and stock-breeder, was the leading advocate of the condiment, but some other gentlemen stated that they had used Thorley's and other similar compounds with advantage. Other gentlemen, however, stated that their use of these articles had

not been attended with favorable results, on the score of profit.

Mr. LAWES was called on for a statement in regard to his experiments, and the deductions to be drawn from them. He stated in the outset that no one who had listened to the discussion could doubt that Thorley's food had certain beneficial qualities. Mr. BROWN's experience, for instance, was, that certain sheep of his which did not get fat on cake and grass, thrived very well on this condiment. "But that," Mr. LAWES said, "was a question of medicine." He contended that the question which affected agriculturists was, whether these things were beneficial to animals in health. "In his experiments, nothing was more striking than the greatly increased consumption of food to [which these condiments led. * * * In this case there was an increased consumption of food without an increase of flesh. In other words, if the condiment had been given to him, he had rather not use it, because his animals, in order to produce the same amount of meat on barley meal, ate more. *

* * The real question was, how much food passed through an animal to produce 100 lbs. increase of flesh? He found that, without Thorley's food, it required 274 lbs. of clover chaff, 137 lbs. linseed cake, and 3,824 lbs. of Swedes. With Thorley's food, it took 285 lbs. of clover chaff, 107 lbs. of linseed cake, 3,980 lbs. of Swedes, and 35 lbs. also of Thorley's food; the difference between the two being, that in one case it took 4,236 lbs., and in the other 4,409 lbs.: that was to say, with Thorley's food about 200 lbs. more food was required to produce a given increase."

This result was obtained from the pigs. The results from the sheep were slightly less unfavorable to the condiment. The increase was 4,536 lbs. without Thorley's food, and 4,576 with it—a difference which would go but little way toward paying for the condiment.

Professor SIMONDS said there could be no doubt that the nitrogenized material which these compounds contained was purchased at an enormous expense, and the results did not pay for the outlay. He had examined a great many of these condiments. He could readily understand that a great many of them had the effect of invigorating the system, and therefore enabling the animal, if its digestive powers were weakened from age or some other cause, to digest a given amount of food in less space of time, and consequently to appropriate by assimilation a larger amount of food than would otherwise be assimilated. But he thought the whole might be obtained in a much simpler and safer way. He did not hesitate to say that if they were to take well ground linseed meal, and mix it with well ground bean or pea meal, or any of those highly nitrogenized matters, and add to that a small quantity of salt, which would supply salts of soda to the functions of the liver, and increase the quantity of bile, and if they would add to that any simple stomachic substance—cumin seed, carraway seed, ginger, gentian, or any of those materials which would act simply as stomachics—they would then have all that they required, and would obtain just as much good as would be derived from any other source.

The Edinburgh *Veterinary Review*, in commenting on the discussion above referred to, speaks of

the general effect of condiments on animals, especially on man, and remarks: "So far as simple condiments are concerned, in their effects on man, physicians are as one in urging their very sparing employment. They are useless to those who, being healthy, are also moderate in their tastes, and are neither intemperate feeders nor drinkers. When a man eats for eating sake, he forces his digestive organs into unnatural work by cayenne and mustard, which he can not afterward dispense with without suffering from dyspepsia. Salt is the material most universally and necessarily employed to render foods palatable, and to aid their nutritious properties. But in excess salt is also very injurious."

The *Review* says that the Danish Government was the first to take up the subject of cattle condiments in a systematic manner, and that judiciously conducted experiments thus instituted, led to conclusions similar to those published by Mr. LAWES.

CULTIVATION OF INDIAN CORN.

The *Boston Cultivator* publishes the following colloquy between farmers A. and B:

A. On what kind of land do you raise corn this year, neighbor B?

B. I have planted a part of "the plain," which, you know, is rather light, dry soil.

A. How do you cultivate it—I mean what is the course after planting?

B. It is planted in hills about four feet each way; I plough it and hoe it three times—weeding, half-hilling and hilling. I use the common "horse plough," and make two furrows to the row at each hoeing, working over with a hoe the spaces not plowed. Sometimes I go both ways, but I always intend to plough the second time the contrary way from the first. I am not very particular as to the first and second hoeings or ploughings, but at the third I want the plough put down *deep*—no matter how high the corn is—I don't care if it is all tasselled out and is higher than the horse's back.

A. I confess I don't see the advantages of your mode of cultivation over mine. Most of my corn land is similar in character to yours, and I plant my corn in a similar way. I don't use the plough among my corn at all; I use a cultivator, and with that I can work over the surface of the ground, close up to the young corn itself, going twice in a row. This kills the weeds, if it is done at the right time, and sufficiently stirs the ground. It leaves but a narrow strip to be hoed. I have no set number of times to hoe or cultivate my corn—I do it as often as it is required. Something depends on the season: I make it a rule to keep the weeds down, whether it requires two workings or four to do it. If the ground is clean and the surface tolerably light, I do not think it will *pay* to work it after the corn is a foot high. Then, as to your practice of running a plough deeply between the rows after the corn has fully tasselled out; it cuts off, turns up, and destroys myriads of roots. By the time the stalks have attained the height you speak of, the roots have formed a complete network through the soil from row to row. If you examine closely after you have ploughed a furrow, you will see the fine white fibres almost as numerous and close together as the threads in a piece of

sheeting. If rain happens soon after you have ploughed, you can see the roots *very* plainly.—Now, why should these roots, which the vital energies of the plant have produced, be destroyed? Is it reasonable to suppose that their destruction can aid the plant in the great object for which it was designed by nature, and which is also the great object of man, viz., *the production of seed?*

B. Well, I don't know about that; but I have raised corn in the way I mention, and am satisfied with it.

A. But did you ever try an experiment fairly, between ploughing deeply between the rows after the corn gets as high as the horse's back, and working over two or three inches of the surface just as the tassel begins to shoot from the sheath, and then *laying the field by*, as they say at the West?

B. No, I never did, because I am satisfied with the way I have adopted. But did you ever try *my* way?

A. Yes, or something very similar to it. I had a field of corn which I intended to finish cultivating, and *lay by* before haying, but was under the necessity of leaving a part of it for a week or ten days after the main portion had been worked over. During this time the ground had become more compact, and the weeds had grown some. The man who was sent to finish up the work thought he could not make the cultivator, which had been used on the other portion of the field, answer for this, and he therefore took a horse-plough, such as you say you use. With this he went through the corn twice to a row, putting the plough pretty well down. It was hoed as the other portion had been, and left till harvest. The corn on the part worked last, was soon noticed not to be doing so well as that on the other part, and when it was gathered, the difference, to a row, was so marked and striking as to attract the attention of the harvesters the moment they passed from one portion to the other. There certainly was not *half* the corn per acre on the part that was worked over last that there was on the other part. It is right to say that pretty dry weather followed the last working, and the operation produced the effect on the corn which in some sections is called *fired*. I wish to state another objection to the use of the common plough among corn on dry land; it exposes the land to drought. It is impossible to use this implement without throwing the ground more or less into ridges and hollows, thereby exposing more surface to the sun and air, and making more channels for the rain water to escape.

Remarks on the foregoing.—Methods of cultivating corn should be varied according to the character of the soil. Loose, open soils can be readily worked with the common cultivator. Even those with cast-iron teeth or feet will answer on this kind of land. But on soils which tend to become too solid, this implement will not produce the requisite friability. Something must be used frequently almost from the time the corn is put in the ground, that will keep the soil tolerably open to the depth it was plowed for the crop. The common horse plough is not adapted to this purpose, because it has not much pulverizing effect, and in passing through the soil actually compresses that at the bottom of the furrow. Neither is this

a good implement for cultivating corn on light soils, for the reasons mentioned in the above colloquy. A cultivator or horse hoe can be made which will do this work in a proper manner; but steel must be used instead of cast-iron. If the teeth or feet are of the right shape, they will penetrate even tenacious soils sufficiently, and at the same time destroy the weeds.

In sections where the greatest success is attained in the cultivation of corn on soils which are liable to become too compact, it is considered highly important to keep the soil from baking or packing early in the season. Implements are therefore run close to the corn in its early stage, before the roots have spread much, and the space between the rows is kept mellow by cultivation till the corn attains such height that it chiefly shades the ground, which it usually does about the time the tassels appear. After this the soil is less likely to become baked or hardened; the corn roots quickly extend themselves through the soil, and they are left to draw from it all the support it is capable of giving.

GREEN MOUNTAIN WAIFS.

EDS. GENESEE FARMER:—It is Monday, June 9th. The weather is exceedingly dry, and in many places vegetation is suffering from want of rain. My diary says it is six weeks since we have enjoyed a plentiful rain in Caledonia county. Appearances strongly indicate a storm, but now, as ever, "all signs fail in a dry time." Grain and corn are just out of the ground, and there seem to rest for a change of weather. Some of our farmers, I notice, are replanting their corn, the dry weather having so affected it as to destroy its growth.

Grass upon the meadows appears finely, especially on the lowlands. The quality of the grass on such lands is better in dry seasons than when it is wet, though the quantity may be somewhat reduced. Grass upon the hills must be affected by the drouth already, and a light hay crop is anticipated. Should this be the case, the considerable quantity of old hay which farmers have in store will in part remedy the scanty yield in prospect. The unusual depth of snow, together with the cold weather of early spring, made the season backward, and a very lengthy drought at this time will materially affect all farm crops.

The prospect of a good yield of fruit is promising. Apple, plum, and cherry blossoms are abundant, and the lesser fruits bid fair for a full harvest. But little fruit was gathered in Vermont last year.

There is quite a demand for horses this spring. The call is principally for the medium class or grade. Prices from \$75 to \$125.

Wool buyers are beginning to bestir themselves considerably, and farmers will undoubtedly make quick sales as soon as their fleeces are ready for the market, if they do not at first "price" too high for the buyers. Farmers are "talking" 45 cents per lb., and buyers about 40 and 42. I think, however, the extremes in this case will be made to meet without difficulty. There will be a heavy shearing of wool in this State the present season, as nearly every one bought and but few sold after the rise of wool in the fall. Many sheep were brought from the Canadas. Farmers may expect

to realize high prices for their wool so long as the North maintains and clothes half a million of men on the battle field. We hope, however, that is not long to be, and the present prospects strengthen our hopes.

I. W. SANBORN.

"The Meadows," Lyndon, Vt.

A SMOOTH SURFACE FOR CORN AND A ROUGH SURFACE FOR WHEAT.

PROF. J. B. TURNER, of Jacksonville, Ill., contributes an Essay on the Cultivation of Field Crops and Preparation of the Soil, to the Journal of the Illinois State Agricultural Society. The following extracts will be read with interest:

Where ground has been suffered to lie too long, especially after a heavy rain, in clay soils, like those in the West, the surface becomes *glazed* or *crusted* over with a sort of smooth glassy crust, of a considerably lighter color than the same soil is when not so glazed, and sometimes almost of a pale grayish white, even in soils generally quite dark.

Now, this crusting over of the soil, as all well know, interferes at once with the processes of successful growth, but the reason why it does is not generally considered.

But we shall find that it lies in three most vital points: every one of which tends directly and seriously to retard all vegetable growth, especially of such plants as corn, and others requiring great heat in the soil.

1. In the first place, this glazed surface being of lighter color, has far less power on that account of absorbing the rays of the sun than it would otherwise have, while the glassy surface constantly, from its smoothness, reflects back the rays like a mirror, and from these combined causes a vast amount of the first element of rapid growth, namely, *heat*, is daily and hourly dissipated, or thrown back into the air and wasted, instead of being absorbed into the soil.

2. In the second place, this smooth surface excludes the *free access* of the air into the interior of the soil, into which it would otherwise penetrate, and (by making a constant deposit of dew among its loose particles, both by night and by day, together with the ammonia and carbon, or whatever else it contributes to vegetation) thus perform its proper functions toward growth, all of which by this little crust are more or less interrupted.

3. But by thus shutting out this free access of both heat and air from above, the corresponding interplay of capillary attraction from below is also interrupted; just as when the lamp wick becomes glazed over, the lamp not only ceases to burn brightly above, but the oil, in like manner, also ceases to respond and to run up from below, so that by this simple glazing of the surface of the soil, every one of the three great essentials of each of these circulatory systems, and of all successful growth is at once checked or retarded, and the entire root of the plant becomes at once robbed of every one of its elements of life, namely, the heat of the sun, and the gasses and moisture which supply its growth from the atmosphere above, and the capillary attraction which supplies, when needed, its moisture and all other required elements from below; the mischief is, therefore, vital at every

point, and its real effects any one can see by simply keeping this crust broken every day with a hoe, on one row of cabbages or other plants in a garden, and allowing another to stand glazed over week after week.

But, on the opposite extreme, the upper surface may be *too rough*. In this case there is the same or even a greater loss of heat, especially in the spring, than before, while all the other processes are interrupted from an opposite cause. The sun's rays are caught in great clods by day, blown away at night, while the interior heat of the earth is fearfully wasted by the more rapid radiation from the rough, uneven surfaces. All are aware how a light snow will melt sometimes from a smooth or rolled field in a single day, while it remains for weeks on an adjacent uneven or cloddy field. This shows us how much heat is wasted by leaving the field rough and full of clods, in the spring months, which would otherwise be absorbed into the soil and laid up to push the young corn into an early maturity of growth. For the best manure heap any corn raiser has is the *sun*, the next best the *air* with its *gasses*, and the rest he may find in his field below, or in his farmyard, or wherever he pleases; but if he so cultivates as to constantly waste the power of the sun and the air, he can not raise a first rate crop of corn, manure it as he will.

Since our spring climate usually has too little heat for corn and too much for wheat, we should keep our corn surfaces smooth so as to save as much heat as possible, and wheat surfaces rough or rigid so as to avoid it as much as possible. So, in all cases, we save heat by smooth surfaces, if they are not glazed or glassy—and dissipate it rapidly by rough ones: both that which comes from the sun above and from the centre of the earth below. Water also stands and lodges upon rough, cloddy surfaces, and thus again dissipates, in its evaporation, an immense amount of this vital element of the corn crop, for it wastes the same amount of heat to boil away or evaporate a quart of water in the field that it does in a kettle over the fire. Such rough surfaces also retard the deposit of moisture and gasses from the air above, and to the same extent interfere with the capillary attraction from below, much as too much frizzling the top of the lamp wick arrests all its proper modes of burning. The free and proper access of the air to the soil below is everywhere interrupted by dry clods and inequalities, which it can not penetrate, or if so, only to have its deposits blown away again by the winds; and, while the natural action is thus interfered with at the surface, that from below must be correspondingly impeded, and the whole process, either of recuperation or growth, in like manner retarded.

DON'T LET THE GRAIN GET TOO RIPE.—The analyses of DR. VOELCKER show that the straw of grain cut before it is fully ripe is fully twice as nutritious as that allowed to get over-ripe. It is also certain that so far as the *quality* of the grain is concerned, (especially of wheat,) early cutting is advantageous. Cut as soon as the berry, on being pressed between the thumb and finger, shows no milk. The circulation has then ceased, and the grain derives no more nutriment from the soil.

APPLICATION OF MANURES.

Few questions have been more frequently discussed by farmers, than the depth to which manure should be buried. Theory as well as practice in relation to this point has varied widely. One man holds that the great point is to guard against the waste of manures by exposure to the atmosphere, and that there is no danger of loss by leaching. In a discussion at the State House last winter one speaker went so far as to say that no fertilizing element could be carried away by water through six inches of sand. Others take the position that manures lose nothing by exposure to the air, and that they may be simply spread on the surface of the ground, with a certainty that the soil and crops will ultimately receive the full benefit of them.

Heretofore we have had but little positive evidence in regard to these points—the advocates of the different theories and methods reasoning rather from general observation than from the actual results of experience. As a means of settling some of the questions in which the subject is involved, the Massachusetts Society for Promoting Agriculture offered, in 1859, premiums for a series of experiments, the programme of which was published in many of the agricultural papers. The list has since been continued from year to year. The basis laid down for the experiments was this:

Five lots of land of equal quantity and quality were to be selected; each of the five lots were to receive a deep plowing, a shallow plowing, and a harrowing; the only difference being that, on lot No. 1, the manure was to be plowed in deep—which is understood to mean as deep as it could be conveniently done by the plow; on lot No. 2, plowed in shallow; on lot No. 3, buried only slightly—say by harrowing; on lot No. 4, left on the surface. An equal quantity and quality of manure was to be applied to each of these four lots, but lot No. 5 was to be left without any manure. Common barn-yard manure was to be used, and the different lots planted to Indian corn. The character of the weather as to moisture, was to be noted.

In the Transactions of the Society for the past year, we have a summary of the general results of the experiments the first year—the number of entries being thirteen. It appears that the plots deeply manured produced the

Best Crop in 2 experiments.		
Second	"	1
Third	"	3
Fourth	"	6
Fifth	"	1

MANURED SHALLOW.

Best Crop in 4 experiments.		
Second	"	7
Third	"	1
Fourth	"	1

NARROWED IN.

Best Crop in 6 experiments.		
Second	"	4
Third	"	2
Fourth	"	1

LEFT ON THE SURFACE.

Best Crop in 1 experiment.		
Second	"	2
Third	"	7
Fourth	"	8

The inference from these results is, that manure slightly buried produced the best crops; the re-

turns being better from the lots where the manure was either plowed in shallow or harrowed in, than from where it was plowed in deep or left on the surface—though the results from the latter were better than from the deep burying. But it should be borne in mind that these are only the results of one season, and that the produce of the same lots must be compared in several succeeding years before we can assume that the advantages of either deep or shallow manuring are demonstrated. In regard to the experiments, it is observed that, "in order to have a completely satisfactory result, sufficient manure, say not less than ten or twelve cords of barn-yard manure, or its equivalent, should be applied to the acre; enough, at all events, to have the effects of it felt during the period of the trial."

Some trials in the application of manures by the late B. V. FRENCH, of Braintree, are alluded to. In plowing a piece of sward ground, he plowed in manure at the rate of about ten cords to the acre on a portion of it. It was green, strong manure, just from the stable, and he took much pains to have it placed in the furrow, so that it should be fairly buried to the depth which the plow ran, which was not less than eight inches. We can state these points with some particularity, as we have often heard Mr. FRENCH describe the experiment, and have been with him over the field where it was made. As we have said, it was on only a part of the field that the manure was put in the furrows. After it was all plowed, it was all manured alike and the manure worked in slightly. None of the succeeding crops for several years showed any advantage in favor of the part where the manure was put in the furrows, and Mr. F. used to say that he believed the manure which was thus deposited "was as completely lost as if it had been dropped into the dock at the end of Long Wharf."

The soil in this case was rather cold, and for a considerable portion of the year, too, wet. The space at the bottom of the furrows formed channels for drainage, and the water coming into immediate contact with the manure probably carried off its soluble elements.—*Boston Cultivator*.

HOE THE TURNIPS.—One great reason why many do not succeed in raising turnips is, that they neglect to hoe them. They should be thinned out to about one foot apart. If sown broadcast, passing the harrow over them is better than nothing, but hoeing is the only certain method of thinning them out properly and keeping down the weeds.

SHORT-HORNS IN FRANCE.—The Durlhams, or, more correctly, Short-horns, are making great progress in France. It is some thirty years since the first importations were made into that country, and now there are some 1,600 animals and about 143 breeders registered in the French Durham Herd-book.

PLOW LAND TWICE FOR BUCKWHEAT.—S. EDWARDS TODD says that, in his experience, no crop pays better for twice plowing than buckwheat. He would plow sod ground in May and again in July, when the buckwheat is sown.

MASSACHUSETTS AGRICULTURE.

Massachusetts is a small state in territory. There are but three of the sister states behind her in this respect. Divide the State of New York into parcels of equal dimensions, and she would give six states. Virginia is eight and one-half times as large; Missouri has nine times as much land.—Texas could spread twenty-nine such states on her soil without crowding them, and California has a lap capacious enough to hold twenty-five such states. She has the most sea-coast in proportion to her size, of any state in the Union, excepting perhaps the peninsula of Florida, the Atlantic forming the whole of her eastern and full one-fourth of her southern boundary. This exposes her to the blasting influence of east winds at all seasons of the year.

Her soil is of all elevations, from the level of the ocean to the summit of Graylock, in Berkshire, 3,500 feet above tide-water. Her natural productions were heavy forests, rocks and ice. The former have yielded to the progress of civilization and the arts. Her rocks gave firm footing to the Pilgrims when they landed at Plymouth, and have become enduring monuments of the country's history, at Bunker Hill and in Charleston harbor.—Her ice has become an article of traffic in India and throughout the tropical regions.

She has sent forth her sons and daughters into all lands, and is liberally represented in all the settled portions of the North and West. Still, she has now on her small farm, a home population of a million and a fourth of inhabitants, ranking the sixth state in the Union in free population. Still she has room and ample employment for more.

Her soil is hard, but yields liberally to the skill of the cultivator. Her winters are long, extending almost to the dawning of summer. Her springs are short, and the transitions they produce resemble the work of magic. Her autumns are long and beautiful—some portions of them magnificent through beauty of her scenery.—*Co. Gent*.

BEANS FOR HOGS.

EDS. GEN. FARMER:—P. Q. is out with his lantern in search of the man who knows beans—as food for stock.

In the winter of 1859, I fed about twenty barrels of refuse beans to hogs, with a good degree of success. My object was not so much to fatten the animals as to keep them in fine condition. The beans were purchased of wholesale dealers, mostly the mere refuse of their lots, at about \$1.25 per barrel.

I threw them into water in lots of half a bushel each, and left them to soak about thirty-six hours, after which the water was thoroughly drained off and the beans rinsed when they would often appear of a quality but little inferior to those brought to table—the defect of refuse beans being usually limited to the skin. The beans were then poured into a large boiler, holding upward of a barrel, a liberal supply of beef or pork scraps was added, a small quantity of meal thrown in, and the whole boiled until the beans were thoroughly cooked. In this way I brought sixteen porkers to "know beans," and consume them, too.

Martinehead, Mass.

J. J. H. GREGORY.



WALKS AND TALKS IN THE GARDEN.—No. III.

"That shower which interrupted our last walk and talk in the garden was like the Irishman's 'poetical' horse, 'better in the promise than in the performance.'"

"We have had no rain worth naming for two months. These cabbage and cauliflower plants I set out after the last shower and when it seemed as if we were going to have a good rain, look rather scaly. The black beetle, or 'turnip flies' show them no mercy. They literally cover the plants and devour the leaves. When a man is down, everybody kicks him; and when a plant is a little below par every little insect and bug and beetle and fungus fastens on to it, and sucks out the vital sap with impunity. A good heavy shower would make these flies 'skedaddle.' They might return, but if the land is in good condition, the plants would soon grow out of harm's way."

"Is there no way of killing them?"

"Soot, lime, ashes, plaster, &c., dusted on the leaves check their depredations somewhat. But in a dry time like the present they are not of much use. In England, this fly used to be the great dread of the turnip grower. I have seen acres and acres entirely destroyed. Since the use of superphosphate, however, this insect is no longer feared. Sow plenty of seed, and drill in the superphosphate with the seed, and it pushes forward the plants so rapidly that the flies can do little damage."

"Last night (June 16th) we had a very severe frost.—What with cold and drouth the season has been anything but favorable for the gardener. This is the second time these tomatoes have been nipped with the frost. I believe in pinching in the shoots, but Jack Frost's method of summer pruning is decidedly too severe. These beans are effectually used up, and even the potatoes are nipped a little. Some of the corn is killed outright, but fortunately it is too thick, and there will be plants enough left. The lima beans look hard. At the suggestion of a clerical friend, who is usually very successful in their culture, I planted them in hills raised some twelve inches high, in order, as he said, to throw off the cold rains and keep the soil warm and dry. The hills are certainly dry enough,—and so are the beans! One thing is curious about them, they were far less injured by the frost last night than the spring beans, which were more luxuriant."

"The melons were covered with boxes, and are all right."

"Strawberries are looking better than one would think. Those grown in hills and mulched stand the dry weather very well, while those allowed to occupy the whole ground have suffered considerably. Jenny Lind is quite

ripe. It is a good early berry, and is larger than the cut which was drawn for the *Genesee Farmer*, a year or two since."



JENNY LIND STRAWBERRY.

"Wilson's Albany is as productive as ever."

"Triomphe de Gaud is a splendid looking berry. When cultivated in hills and the runners removed it bears well. Its quality is ordinarily fair, but sometimes you meet with an overgrown berry that is as pithy and tasteless as a big turnip. Still, on the whole, it is a very fair berry, and pleases all those who judge fruit by the sight rather than the taste."



LARGE EARLY SCARLET.

"Large Early Scarlet is unusually fine this season.—After all, there is nothing better, on the whole, than this well-known variety. A vigorous grower, early, productive, and popular in market."

"Look at these standard apricot trees. Nothing can be handsomer. If the time ever comes when we get the upper hand of the curculio, apricots will be extensively cultivated. As yet it seems not to have hurt them."

"How did I succeed with the caterpillars on the gooseberry and currant bushes? Admirably. The tar remedy was a success. As fast as the worms hatched out on the leaves I shook them off, and by keeping the tar around the stems fresh and sticky by repeated applications, they could not crawl up again. You would have laughed to see them attempt it. They marched rapidly up the stem till they reached the ring of tar. Here they halted. Some turned back, evidently thinking it was a masked battery, while others crept all

is a certain cure, and there is no necessity for grapes ever being injured materially by mildew."

"I have just been thinning out pears. The dwarf trees bear so profusely that unless this is done the fruit will not only be of small size and poor quality, but will exhaust the tree. Look at these Seckels. There are five pears on almost every fruit stalk, and two are as many as should be left. Perhaps it would be well to leave more on the lower than on the higher branches. The growth of the trees is stronger towards the top, and by leaving more fruit this tendency would be checked. Some think it is too early to pinch in the shoots yet, but I cannot keep my hands off. I do not like to see the strength of the tree running into shoots that will have to be cut off



at the next winter pruning. Better nip in these young shoots (a. a.) now, (at b. b.) so as to leave only three or four buds. This will concentrate the sap, and convert the lower part of the shoot into a fruit branch."

"If done later, some prefer to bend down the shoot (at a.) instead of cutting it off. This checks the flow of sap without stopping it entirely, and prevents all danger of the remaining buds pushing into wood."

"Of course all superfluous shoots should be pinched or nipped off at once. They only weaken the tree."

"Nothing is easier than to propagate carnations by layers. The process is simply to strip off the leaves

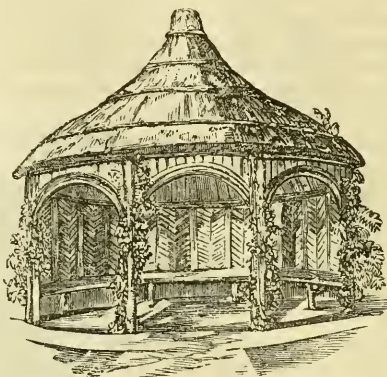


LAYERING CARNATIONS.

from a shoot as far as it is necessary to imbed it in the ground; then cut off an inch or so from the leaves at the end of the shoot; then cut the stem below a joint half way through, and turn the knife upward and slit the stem to the next joint above. Then bend the stem into the ground, peg it down and cover it with soil, leaving the head of the layer in as upright a position as possible. It

should be done as soon as they have ceased blooming. Roses may be layered in the same way."

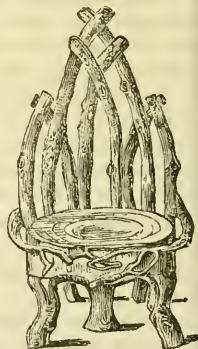
"You will find some admirable designs for summer houses and for rustic seats in Mc Intosh's Book of the Garden; or if you have not that, in the *Rural Annual* for 1858. Come in and I will show you them."



JUNE 19.—"We have had a glorious rain. The ground is well soaked. Now, if we have warm weather, things will bound."

"See how the aspect of everything is changed. The strawberry leaves are full of sap, the peas have a green hue, the lawn does not look quite so parched and brown, and even the drooping, fly-devoured cabbages begin to hold up their heads."

"It is a splendid time to transplant. Those cabbages that have departed this life under the combined attack of grubs, insects and drouth shall have their places refilled. It is also just the time to set out celery. I think those trenches are too deep; six inches below the surface is deep enough. Set the plants a foot apart and earth up as they grow."



"Annual flower seeds have not come up very well. Some, however, are too thick, and these can be thinned out, and the plants used to fill out vacancies."

"What is the best plant for hedges?"
 "That is a difficult question. For fences, there is perhaps nothing better than the Osage Orange. But it has many drawbacks. If neglected, you will soon have

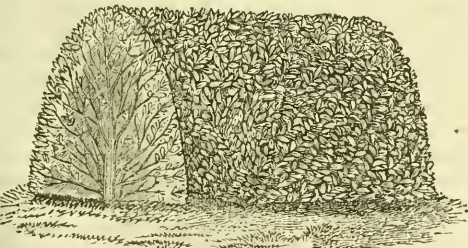


BADLY TRAINED HEDGE.

hedge of fishing poles. It is no little labor to keep it trimmed, and even with the best care there will be an occasional gap. Many hedges have been set out in this and other sections, but it is rare to see a good, well formed and effectual fence. Here is a good specimen of the class of poor osage orange hedge. I have seen many worse, but this is bad enough. Every few rods it is necessary to stick in a rail or a board to make even an approximation to a safeguard against cattle, while a hog will go through with impunity. Occasionally you see a hedge that has been well trained, and when out in full leaf nothing is handsomer. The main point is to cut it in sufficiently to render it broad at the bottom and gradually taper toward the top; or it may be rounded as this is, but I prefer to taper it up rather more to a point."

"The Privet makes a handsome hedge, but it is not strong enough to turn cattle."

"Perhaps the best plant for a screen or ornamental hedge is the Arbor Vitae. It grows rapidly, bears clipping well, and is quite hardy. Mr. HOOKER has one of the



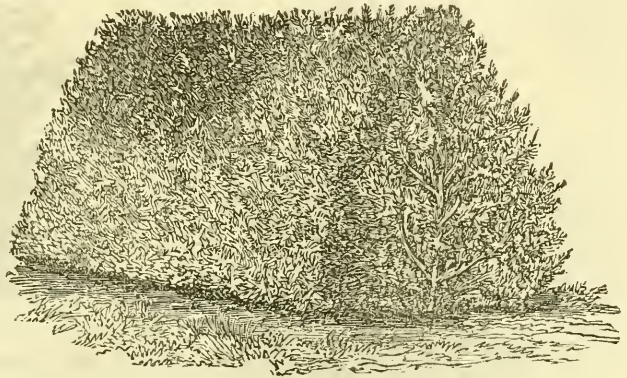
PROPERLY TRAINED HEDGE.

most beautiful arbor vitae hedges I ever saw. It is worth going to see. HOCHSTEIN made a drawing of it for the *Genesee Farmer*. It is quite an ornament to the grounds, and invaluable as a screen to break the force of the wind."

"The Norway Spruce makes an excellent screen. ELLFANGER & BARRY have a hedge of them that is very

handsome. In fact, they have hedges of nearly every plant that can be used for that purpose. Running through their magnificent grounds is a well-kept grass walk, with flower border and a hedge on each side. Every few rods, the hedge is made of a different plant, such as buckthorn, hawthorn, beech, locust, American and Siberian arbor vitae, Norway spruce, and many others, affording an admirable opportunity of ascertaining their comparative merits."

"Did you ever observe what a difference there is in the habits of the Norway Spruce? Here are two. One is of a drooping, slender, graceful habit, while the other is stiffer and stronger and more upright. There is as much difference between them as between an Easter Beurre and Seckel pear. And why should there not be? They are raised from seed, and while all the plants are Norway spruce, we may have distinct varieties. I have no doubt that such is the case—and that some are much handsomer than others. I see no reason why the same is not true of other ornamental trees raised from seed. Maples and horse chestnuts growing side by side differ materially in



AMERICAN ARBOR VITAE HEDGE.

their habits, time of flowering, &c. But I do not recollect seeing any explanation of the fact or even an allusion to it."

"The black-knot on the plum does not seem to be so bad this season as usual. A gentleman informs me that he had a young tree that was affected this spring, and he cut out every limb that had excrescences on it. The tree is now healthy and full of fruit, while another tree similarly affected which was left untouched presents a very sorry appearance. It will not do merely to cut off the excrescences. They will come on again. You must cut off the limbs as fast as any appearance of the knot is seen."

"The rain has gone in about three inches on hard ground and nearly a foot in loose soil,—showing the advantage of keeping the ground mellow."

"Seven tenths of an inch of rain fell last night and this morning. This is equal to twenty-one thousand four hundred and four gallons of water per acre, or between four and five gallons per square yard. This shows that to derive much benefit from watering, it must be done more thoroughly than is generally thought necessary."

TRELLISES FOR GRAPES AGAIN.

EDS. GENESSEE FARMER:—I see in the June No. of the *Farmer* a method suggested by "Ruricolist" for stretching wires on grape trellis." Now, I think I have a better plan, and full as cheap, as "Ruricolist." Take seven-sixteen round iron, five or six inches longer than the diameter of your post; take your iron to a machine shop where they have the facilities for cutting bolts; have a thread cut four or five inches on one end, the other end flattened down to half its thickness. Through this end have a hole drilled one size larger than your wire, this will admit the wire to pass through the flattened end of the bolt easily. Now fasten your wire securely, and pass the screw end through a hole in your post, two sizes larger than the bolt. Put on the washer and burr, and you will find but little difficulty in making your wire as tight as you desire. In this case, it is all important that the end post should be securely braced.

W. H. S.

Penn Yan, N. Y.



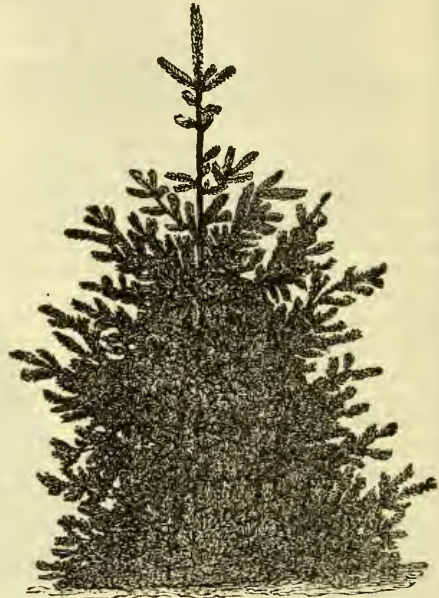
THE DOUGLAS FIR.

THE London *Gardener's Chronicle* speaks of this tree in the highest terms, both for ornamental purposes and for timber.

Experiments recently made in France show that the timber of the Douglas fir from Vancouver's Island is of great strength, and its vast height and freedom from knots render it superior to all others for masts of vessels. It thrives well in all parts of Great Britain, except the extreme north, and is, "of all trees, that which deserves the attention of planters for profit."

It is a native of British Columbia, where the climate is very severe. "The trees there," Dr. LINDLEY thinks, "must have iron constitutions, and their offspring may be expected to resemble them in every particular." He recommends the importation of large quantities of seed, and the extensive propagation of the plants in England. The subject is one which deserves the attention of arboriculturists in this country.

The Douglas fir has been supposed to be rather tender in the northern parts of the United States. It is quite possible that by selecting the seeds from trees growing in a more elevated and colder region, we may get hardier plants. Mr. SARGENT, of Dutchess Co., N. Y., says "with me plants in low, damp ground suffer occasionally in color, if not in loss of leader, while those grown in the shade, or on an exposed hill-side, in poor, slaty soil, succeed admirably."



SMITH'S SPRUCE FIR.

Mr. S. classes it with *Abies Smithiana* (India spruce), in regard to hardiness. We annex a cut of both these beautiful evergreens, and can only hope that both will prove sufficiently hardy to withstand the severity of our climate.

GRAPES ON KELLY'S ISLAND.—A correspondent of the *Oberlin News* says there are now on Kelley's Island about 500 acres of vineyard, of which 210 are in bearing. In 1861, there were 126½ acres in bearing. From this area, the product was in value, for fruit and cuttings sold, and wine produced, \$353,305, being \$421 per acre. One man will do the labor required for five acres. Each acre, when in full bearing, yields about three tons of fruit. A gallon of wine is produced from eleven lbs. of fruit, and as the fruit, when sold for eating, brings about seven cents per gallon, it will be seen that the grape business must be very profitable. The appearance of this island, its rapid improvement in all respects, and the evident self-satisfaction of the people, all prove that everybody is well-to-do.

THINNING PEARS.—One great error in the management of dwarf pear trees, is allowing the trees, especially young trees, to bear too much fruit. It is absolutely necessary, for the health of the trees and to secure good sized fruit, that the young fruit be thinned thoroughly at this season. Don't be afraid of thinning too much.

SUMMER PRUNING OF GRAPE VINES.

At a meeting of the Grape and Wine Grower's Association of Northern Ohio, on the 24th ult., Charles Carpenter, of Kelly's Island, gave the following as his method of Summer Pruning:

"The many directions given for summer pruning grape vines are enough to bewilder the novice, if not those of my experience, and I hope, in attempting to elucidate, shall not further mystify the subject. As a general rule, prune as little in summer as you can, and not let the vines get so thick as to cause any of the leaves in the thickest places to turn yellow, or deprive the fruit of plenty of light and air. The winter pruning should be more severe than is usually done. In vineyard culture, where forty to forty-five superficial feet of land are allowed to a vine, from thirty to forty eyes to a vine for bearing are plenty for most varieties. Never leave over one bud or joint per surface foot of land where the soil is favorable; and where it is unfavorable, the vines should be planted further apart, and a less number of eyes for a given surface left.

"Now, if the winter pruning has been properly done, a little will be necessary in summer, and should commence early by removing water sprouts, superfluous buds, and whenever, from short-jointed canes, or too close clustering of them, there will evidently be too dense a mass when grown, thin out a part.

"As soon as the fruit is set, select the shoots for the next year's bearing, which should be grown on spurs, on the lower part of the stock, and trained as much as practicable aside from the fruit and above it, and have the laterals picked out for three or four feet, so as to have a clean cane for next year, and keep the vine open near the fruit. Beyond this, remove no laterals, nor stop the ends of their canes.

"Some of the fruit bearing shoots, particularly those near the ends of the canes, will incline to make too much growth; these may be stopped at from three to six leaves from the last cluster of fruit. Of the fruit-bearing shoots, except those near the end of the cane, but few will need topping, if there is a full crop of fruit, and proper attention is given to tying up so as to keep the growth spread and open. Always endeavor to prevent growth by topping ends and removing buds rather than to cut away after the growth is made.

"In all summer pruning and tying up, care should be taken that fruit grown in the shade should not be exposed to the direct rays of the sun. If the shade under which it has been growing is removed, it will surely be injured, if not spoiled.

"The best grapes are always grown in the shade of the foliage. They require light and circulation of air. Those grown under the direct rays of the sun are smaller, harder pulped, and inferior to those grown where they receive considerable protection."

HORTICULTURAL ITEMS FROM EUROPEAN JOURNALS.

A CORRESPONDENT of the *Revue Horticole*, in speaking of some of the causes which affect the size and flavor of fruits, says: "In 1861, the spring was very cold, and the late frosts nearly destroyed the fruit buds. This was followed by continued rains, until August. Then the weather became very warm, and the vines, which were supposed to be destroyed, revived, and it is said that the wine made that season was remarkably fine. The later varieties of pears grew to an enormous size, and the apple trees were loaded with magnificent fruit."

THE same correspondent urges, in a very interesting letter, the public schools in the various departments to add to their other studies a course of lectures upon horticulture and arboriculture. M. RERRIN, the chief gardener of the gardens of Luxemburg, has given to his numerous assistants a gratuitous course upon the culture and "shaping" of trees for several years, and two or three other distinguished horticulturists have in this way endeavored to popularize the science. A school for gardeners at Paris, where there shall be regular graduating classes, is also proposed—each student being obliged, after graduating, to teach in the schools of the departments for a certain length of time.

THE *Cottage Gardener*, in an account of some fine forcing houses in Ireland, says: "Besides some nice crops of melons, we were shown two specimens in a fruit room. One of them was a sort of canteloup, a fine, well-swelled specimen, with an aroma to tickle an epicure, and 20 lbs. in weight! The plant had no other attention except severe thinning and a pretty good supply of manure water.

MR. WM. PAUL, of Waltham, has introduced a new rose, the "Beauty of Waltham," a cross between Jules Margottin and General Jacqueminot. Mr. BEATON, of the *Cottage Gardener*, says that it "beats both its parents."

A BRANCH of a peach tree bearing a peach and nectarine at the same time, was presented to the Horticultural Society of France in 1860. In the discussion which was consequent upon this singular and curious presentation, one of the members said that the same phenomena was mentioned in the "Transactions of the Royal Horticultural Society of London." It was remarked that the scion which was developed by the side of the nectarine had all the characteristics of that fruit.

J. G. VEITCH has returned to England, after a two years botanical visit to Japan. He brought with him seeds of many new plants.

REV. R. W. THOMSON, of England, has just published a new work on the culture, propagation and management of the Rose.

THE IDEA that we can acclimate plants is ridiculed by Dr. LINDLEY. The subject is creating considerable discussion, and it a plant once inherently tender has ever become permanently hardy we shall be likely to hear of it. No such instance has yet been adduced.

TRANSPLANTING CABBAGE.—The *Gardener's Monthly* says that if the plants are put in a bucket of water, and then set out as soon as taken from the water, they will seldom wither or require any protection from the sun.

NATIVE WINE IN THE ARMY.—An extensive wine maker of Cincinnati says he has sold all his best Catawba wine, ready to bottle, to the United States Medical Department.

CROPPING ORCHARDS.

We have been somewhat surprised at finding in the *Gardener's Monthly* an editorial article recommending seeding orchards down to grass. The editor of the *Monthly* is an experienced horticulturist, and his opinions on this subject are entitled to respectful attention. We give his article entire, as follows:

"A question of immense importance to the fruit grower has for some time been under discussion, namely, Should orchards be kept cultivated with other crops, be kept hoed and cleaved without other crops, or be laid down as a pasture or be kept in grass? We have forborne for some time any fresh allusion to the topic, as it is one worthy of discussion without prejudice, or with an influence in favor of foregone conclusions; as an orchard in bearing is not the work of a day, and we should be slow in adopting a practice either way that may injuriously affect our trees, without a conviction, founded on some pretty sound reasoning, that it is a correct and proper one.

"There are several good reasons in favor of cultivating and cropping an orchard. A soil that has a loose upper surface such as the cultivator leaves is always cooler and moister in summer than one which is suffered to lie in a hard and neglected state. This must be conducive to free growth and to a full and perfect setting of the fruit. Another good point is that in cropping, manure is generally applied, and a portion of this plant food is appropriated by the fruit tree. This also stimulates an active growth, and in certain periods of the tree life is of course a benefit. There are no other advantages claimed for this course, and they are summed up in this way: Cultivating and manuring make the trees grow.

"On the other hand, vigorous growth is not always emblematic of health and productiveness,—rather the reverse, for vigorous growth is antagonistic to abundant fruitfulness. A tree that bears young is soon exhausted, becomes stunted, and is never worth the room it occupies; while one that is in a continued state of vigorous growth rarely bears fruit in any abundance: and this is the advantage claimed for laying an orchard in grass, that this exuberant growth is held in check, while, by annual top-dressings, a sufficiency of nutriment can be furnished the trees to keep up a sufficiently vigorous growth to maintain the productiveness of the tree.

"We have advocated and still defend this practice. The writer was raised in an orchard. Circumstances so ordered that trees and plants were very near the sole companions of his boyhood days. Not until the threshold of manhood was reached, had he much other amusement or occupation than to note the beauties and attraction, the wants and wishes, of his vegetable friends. Yet, from that early day to this, he cannot remember an instance where fruit trees, in a well-kept and cultivated garden, remained perfectly healthy for a long period, or ever produced but a very moderate crop of fruit,—the Dwarf Pear alone excepted, and this reservation he is not sure need be made under all circumstances. On the other hand, orchards in rich pastures, or in well-cared for meadows, have uniformly been as healthy, moderately vigorous, and with a prolonged productiveness, as the most exacting fruit grower could desire. And since the existence of this

journal, we have noted all that has appeared on every side of the question, both by actual observation and from the experience of others; and we cannot but conclude that the uncropped orchard has the best of the argument all things considered.

"Advocates of this practice are at times charged with inconsistency. 'You oppose great vigor in fruit trees,' say some, 'and recommend root-pruning as a corrective yet, when we root prune with the cultivator, you oppose the practice!' But root pruning and fibre pruning are different matters, and have different results. The one checks growth—the other increases it. Such is the consequence in practice, and we need not enter here into an argument to explain why it is so; our limits will only permit us to say, as the result of a careful examination of the subject, that when trees appear weak and stunted, cultivate and manure until you get them into a fair, free growth; after that seed the orchard down in grass, bearing particularly in mind that annual top-dressing or mulching under each tree, must by no means be neglected."

REMARKS.—If our friend of the *Monthly* will favor us with a visit, we can show him in a drive of a few hours many instances of the good effects of cultivating the ground among peach trees, and of the bad effects of letting ground lie in grass or clover.

Whenever a poor, sickly-looking peach orchard is seen there he will find that the land is either in grass, clover or some grain crop that is not cultivated. The effect can be seen at a long distance. It will not be necessary to leave the carriage. The yellow leaves and stunted growth of the trees tell the story. He who runs may read.

Perhaps, though, our friend did not mean to include peach trees, though the only exception he makes is that of dwarf pears, and he is not sure that even this reservation is necessary!

One of the best apple orchards that we have seen in Western New York is cultivated with hoed crops and the ground is kept as clean and mellow as a summer fallow. There are many good apple orchards which, after the trees begin to occupy and shade the ground, are allowed to lie in grass. It is more convenient. But we never heard the idea advanced that the trees were any better or more productive for this treatment.

THE DISTINCTION BETWEEN A CARANTON AND A PICOTEE.—The *Cottage Gardener* gives two cuts, one of a perfect Carnation and the other of a Picotee, and in the article which they illustrate says, with an apology for supposing any one ignorant on the subject, that one can be distinguished from the other by the markings on the petals. In the carnation, they are in bars from the base to the edge of the petal; while in the picotee they are confined to a lacing on the edge.

MULCH THE TOMATOES.—The *Gardener's Monthly* says: "Tomatoes do best when suffered to grow flat on the ground; but in such cases the soil should be covered with a mulch of straw or litter to keep the tomatoes from getting soiled and rotten by dampness. Brushwood is an excellent material for them to lie on, and they seem to thrive well with it about them."

Young People's Page.

LAST autumn, in one of Farmer Thrifty's well cultivated fields, potatoes of all kinds and degrees were assembled. Not a speck or a scab was to be seen among them. They were all good, each after his kind. All sprung from the same earth, all received the same care and culture from the same Farmer Thrifty, and all were shortly to be carried to the same cellar.

They lay down happy and content, basking in the sunshine of the mild autumnal sky. Presently the rotund and jolly Mercer lighted his pipe and smoked away with content self-satisfaction. He recalled the glory of his an-

gave it as his opinion that there was no great merit after all in being so big and burley. "Height, now, amounted to something," he said, "but to be as broad as you are long was not his idea of beauty. Old Mercer might have taken some prizes in this country, but he was descended from the illustrious family of Flukes, who, as Mr. Mercer should know, received the special patronage of the Queen and nobles of England. Besides," said he, waxing warm under the influence of his cigar, and an admiring glance from Lady Finger, "we command the highest price of any potato in the great Covent Garden market in London."

Little Mexican noticed the admiring glance which Lady Finger cast on Master Fluke, and just for a moment he, too, wished he was not so short and so thin.



cestors, born and bred on that very farm; what feats they had performed; how much some of them weighed, and how many prizes had been awarded them at different State and county Fairs.

Had he been let alone, all this would have passed off in smoke. They knew him to be sound to the core, and, though a little coarse, he was generally esteemed a kind-hearted, good-natured fellow, and his foibles were generally excused by his companions.

Little Mexican, however, sticking his hat behind him, looked up at old Mercer with so much admiration that young Master Fluke thought that he too would like to command as much attention.

Now, Master Fluke was enamored of little Lady Finger, who lay modestly concealed beneath the grass. So he slipped away and presently returned mounted on a pair of stilts, cut from a pumpkin vine. Lighting a cigar, and bowing gracefully, as he thought, to Lady Finger, he

But lo! while Master Fluke was smiling and smirking at Lady Finger, and casting scornful glances on those around him, altogether forgetful to what he owed his elevation, a little Black Beetle came creeping through the grass, and finding his favorite stalk, commenced drilling into it with his little saw, when presently down came Master Fluke, scratching old Mercer as he fell, and hitting Lady Finger such a blow on her delicate white hand that she never forgave him, and giving himself a black eye. He picked himself up as speedily as possible, but his companions could not help laughing at him, and when Farmer Thrifty came to carry them home, he found him so bruised that he thought he was not worth putting into the wagon. So he was left out in the cold field.

The next day the scratch on old Mercer's side was black and blue, so he was sent to market, while little Mexican and Lady Finger were carried home and put in the warm and comfortable cellar, and covered with nice clean straw.

Ladies' Department.

ORIGINAL DOMESTIC RECEIPTS.

Contributed to the Genesee Farmer.

TO BOTTLE CHERRIES.—Take the common sour cherry, stone them, and fill any bottles that you may have. Set them into warm water on the stove, and gradually increase the heat until the air is expelled from the bottles. It will be necessary to have some reserved cherries to fill the bottles, as they shrink very much, and there must be no space between the fruit and the cork. Put in the corks while in the water, and seal them immediately after they are taken out. Stoning the cherries is quite a tedious process, but the rest of the work can be done very rapidly. A dozen bottles can be filled and sealed in two hours. In this way, you can have cherry pies and puddings all winter. There is no fruit that keeps better than cherries, and after being prepared in this way they are much better when stewed with half a lb. of sugar to one lb. of fruit than the richest preserves.

RASPBERRY VINEGAR.—Take three or four quarts of raspberries, put them in a stone crock and cover them with vinegar. Let them stand twenty-four hours. Then strain this juice through a jelly bag and pour it on to fresh berries, letting this stand another day. Repeat this process until you have the quantity you desire. Add to each pint of juice one pound of sugar. Put it into a preserving kettle and allow it to heat sufficiently to melt the sugar. When it is cold, put it into bottles. It will keep several years.

CURRENT JELLY.—Pick fine red and large ripe currants from the stems, bruise them and strain the juice from a quart at a time through thin muslin, pressing it gently to get all the liquid. Put a pound of white sugar to each pound of juice; stir it until it is all dissolved; set it over a gentle fire; let it become hot and boil for fifteen minutes; then try it by taking a spoonful into a saucer. When cold, if it is not quite firm enough, boil it for a few minutes longer.

LACE AND MUSLIN CURTAINS.—After washing and starching them it is much better to stretch them upon a sheet fastened to the carpet than to iron them. They must be pinned to the sheet very carefully. The pins should not be more than four or five inches apart. Although this is a good deal of labor, the improved appearance of the curtains is a full compensation.

Shetland shawls can be dried in the same way.

CURRENT WINE.—One quart of current juice, two quarts of water, three pounds crushed sugar, and to each gallon of the mixture add one gill pure brandy.

Place a cask upon its side with the bung up, and fill it entirely. It will require replenishing, as it wastes by fermentation, and the cask should be always kept full.

STRAWBERRIES.—This delicious fruit is so acid that it requires the full complement of a pound of sugar to a pound of fruit to prevent its spoiling before winter. They preserve their shape and color better if they are only partly cooked in the syrup, and then allowed to stand in

the sun two or three days; but if cooked entirely by the fire, they should be put into jars while hot and sealed immediately.

RENOVATING BLACK ENGLISH CRAPE.—Crape which has lost its color and stiffness can be restored by ironing it between two pieces of black paper cambric wet with alcohol. The table on which it is ironed should be first covered with flannel.

SOME HINTS ABOUT LADIES' BONNETS.

A black bonnet with white feathers, with white, rose or red flowers, suits a fair complexion. A lustreless white bonnet does not suit well with fair or rosy complexions. The white bonnet may have flowers, either white, rose or particularly blue. A light blue bonnet is particularly suitable to the light haired type; it may be ornamented with white flowers, and in many cases with yellow and orange flowers, but not with rose or violet flowers. A green bonnet is advantageous to fair or rosy complexions; it may be trimmed with white flowers, but preferably with rose. A rose-colored bonnet must not be too close to the skin; and if it is found that the hair does not produce sufficient separation, the distance from the rose color may be increased by means of white, or green which is preferable; a wreath of white flowers in the midst of their leaves has a good effect. A black bonnet does not contrast so well with the ensemble of the type with black hair as with the other type; yet it may produce a good effect, and receive advantageously accessories of white, red, rose, orange and yellow. A white bonnet gives rise to the same remarks as those which have been made concerning its use in connection with the blonde type, except that for the brunettes it is better to give the preference to accessories of red, rose, orange and yellow, rather than to blue. Bonnets of rose, red, cerise are suitable for brunettes when the hair separates as much as possible the bonnet from the complexion. White feathers accord well with red; and white flowers, with abundance of leaves, have a good effect with rose. A yellow bonnet suits a brunette very well, and receives with advantage violet or blue accessories; the hair must always interpose between the complexion and headdress. It is the same with bonnets of an orange color more or less broken, such as chamois. Blue trimmings are eminently suitable with orange and its shades. A green bonnet is suitable to fair and light rosy complexions; rose, red, or white flowers are preferable to all others. A blue bonnet is only suitable to a fair or bright red complexion; nor can it be allied to such as have a tint of orange-brown. When it suits a brunette, it may take with advantage yellow or orange trimmings. A violet bonnet is always unsuitable to every complexion, since there are none which yellow will suit. Yet if we interpose between the violet and the skin, not only the hair, but also yellow accessories, a bonnet of this color may become favorable. As an important memorandum, it must be added that, whenever the color of a bonnet does not realize the intended effect, even when the complexion is separated from the headdress by masses of hair, it is advantageous to place between the hair and the bonnet certain accessories.—*Godey's Lady's Book*.

Miscellaneous.

A DOT.

What's smaller than a dot—
Can mortal biped tell?
'Tiss less than little spot,
And dark as magic spell.

Important still is dot,
Especially to I.
Absent in cold or hot—
We with it live and die.

What lots of dots in Life,
Of pun, of fun and wit;
There's Dieken's "Dot," the wife,
And little "Dot," the chit.

The sky gives light in dots.
Besprinkled here and there—
While children, brighter spots,
Are Earth's stars everywhere.

A DISCRIMINATING SHOT.—Two men, Jones and Martin, went deer hunting. After remaining together a while, they separated, and soon Jones, hearing the report of Martin's gun, went to him. Seeing no game, he asked him if he had shot anything. "No," replied Martin, rather carelessly, "didn't shoot anything." "What did you shoot at?" Martin seemed confused and evaded a reply. Jones looked round a little, and saw a calf grazing a short distance off. "Did you shoot that calf?" asked Jones. "Yes," replied Martin, "I shot at it." "You did not hit it, though," said Jones. "No, I did not hit it." And Martin went on to explain. "You see, I was uncertain whether it was a calf or a deer, and I shot so as to hit it if it was a deer and miss it if it was a calf!"

During the stormy days of 1848, two stalwart mobocrats entered the bank of the late Baron A. Rothschild, at Frankfort. "You have millions on millions," said they to him, "and we have nothing; you must divide with us." "Very well; what do you suppose the firm of Rothschild is worth?" "About forty millions of florins." "Forty millions, you think, eh? Well now, there are forty millions of people in Germany; that will be a florin apiece; here is yours."

A NICE MAN FOR A SMALL PARTY.—A country magistrate, noted for his love of the pleasures of the table, speaking one day to a friend, said: "We have just been eating a superb turkey; it was excellent, stuffed with truffles to the neck, tender, delicate, and of high flavor; we left only the bones." "How many of you were there?" said his friend. "Two," replied the magistrate. "Two!" "Yes; the turkey and myself."

ELIGIBLE TO PREACH.—A correspondent of a Boston paper tells the following story of a fellow who applied to a magistrate in England for a license to preach. He was asked the usual question, "Can you read and write?"—"Neither," said the aspirant to pulpit honors. "Then," asked the licenser, "how can you think of preaching?" "Oh," replied the clown, "mother reads, and I 'spounds and 'explains!"

DR. BEECHER says: "Never chase a lie. Let it alone, and it will run itself to death. I can work out a good character much faster than any one can lie me out of it."

GOUGH'S APOSPROPHE TO COLD WATER.—Look at that, ye thirsty ones of earth! Behold it! See its purity! How it glitters, as if a mass of liquid gems! It is a beverage brewed by the hands of the Almighty himself! Not in a simmering still, over smoky fires, choked with poisonous gases, and surrounded by the stench of sickening odors and rank corruptions, does your Father in Heaven prepare the precious essence of life, the pure cold water; but in the green glade and grassy dell where the red deer wanders and the child loves to play—there God brews it. And down, down, in the deepest valleys, where the fountains murmur and the rills sing—and high up in the mountain tops, where the naked granite glitters like gold in the sun, where the storm clouds brood and the thunder storms crash—and away far out on the wide sea, where the hurricanes howl music and the waves roar the chorns, sweeping the march of God—there he brews it, that beverage of life—health giving water! And everywhere it is a thing of beauty—gleaming in the dewdrop, singing in the summer rain, shining in the ice gem, till the trees all seem turned into living jewels; spreading a golden veil over the setting sun, of the white gauze over the midnight moon, sporting in the cataracts, sleeping in the bright snow curtains, softly about the wintry world and weaving the many colored iris, that seraphs' zone of the sky, whose warp is the rain drop of earth, whose woof is the sunbeam of heaven, all checkered over with celestial flowers by the mystic hand of refraction. Still always it is beautiful, that blessed life-water. No poison bubbles on the brink; its form brings no sadness or murder; no blood stains its limpid glasses; broken hearted wives, pale widows and starving orphans shed no tears in its depths. No drunkard's shrieking ghost from the grave curses it in the words of eternal despair. Beautiful, pure, blessed, and glorious—give me forever the sparkling, pure Cold Water!

A MAN was brought up by a farmer, and accused of stealing some ducks. The farmer said he should know them anywhere, and went on to describe their peculiarity. "Why," said the counsel for the prisoner, "they can't be such a very rare breed; I have some very like them in my yard." "That's very likely, sir," replied the farmer; "these are not the only ducks of the sort I have had stolen lately."

THE BIG FIDDLE.—A shrewd clergyman was once tormented by his people to let them introduce the big fiddle, or bass viol, into the church. He told them the human voice was the divinest of all instruments of music; but they introduced their viol, and the old man rose and said: "The brethren will, if they please, sing and fiddle the Thirty-Ninth Psalm."

PERFECT DISCONTENT.—An old lady was in the habit of talking to Jerrold in a gloomy, depressing manner, presenting to him only the sad side of life. "Hang it," said Jerrold one day, after a long and sombre interview, "she wouldn't allow there was a bright side to the moon!"

A GOOD IDEA.—That is a good idea of Clark's: "The frost is God's plough, which he drives through every inch of ground in the world, opening each clod and pulverizing the whole."



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FAIRS.—Next month we shall give our usual list of the Fairs to be held this fall, and shall be glad if the Secretaries of the Societies will inform us of the time and place of holding.

Present the Claims of the Genesee Farmer.

WE have no hesitation in asking *every* one of our readers to present the claims of the *Genesee Farmer* to their neighbors and friends. No one can desire a *cheaper* paper, and we are trying to make it more and more worthy that extensive patronage it has so long enjoyed from the intelligent farmers and fruit growers of the United States and Canada.

Our friends are already sending in the names of subscribers to the half volume, commencing with this number. And the object of this brief paragraph is to thank them, and to ask others to do likewise. Will not *each* reader speak to any neighbor or friend who does not take the *Farmer*, and ask him to subscribe to the half volume? No one need be without an agricultural paper when it can be had for six months for the price of eight or ten ounces of wool!

The *Genesee Farmer* will be sent to any address for six months for 25 cents. Liberal premiums are also offered to all who send us subscribers. See last page of this number.

NOTES ON THE WEATHER FROM MAY 15TH TO JUNE 16TH, 1862.—The temperature for the first half of May was a little below the average, and in the last half a little above it, so that the average of the month was 55.8°, and for twenty-five years was 56.1°, not half a degree below. The highest temperature was 89°, on the 18th, and the hottest day 76°. The weather in this section has been uniformly pleasant, and destitute of any striking results. The rain of the month was only 1.95 inches, and in the previous month 1.89 inches, so that the earth was very dry, and the spring crops have suffered. Severe thunder storms occurred at the South and West, but very little lightning in our city or its vicinity. The month has been pleasant and prosperous for the farmer.

We had a slight frost on the 24th instant, and the next morning, which did little injury.

The canals have been navigated for the month, and a great amount of cereals, lumber, &c., has been moved eastward. The weather has been favorable for planting corn, potatoes, &c.

June has been cooler, and the average of the first half is 60.7°, or only three degrees below the mean for twenty-five years, and about six degrees below last June. No rain of consequence has fallen here, while abundance has been poured down at the south, and even this State below the middle line of it has been drenched. To the very end of the month the drouth is upon us, and the spring crops must soon be destroyed without rain. Well may we trust that so great an evil will be prevented by a kind Providence. Yet, wells and springs are little affected, and trees and plants whose roots penetrate deep into the earth appear to suffer but little. The northern half of Western New York and most of Canada West, greatly feel the drouth. Rain only 0.17 inches.

The highest heat of noon was 84° on the 12th, and the coldest was 56° at 7 o'clock on the 1st. The hottest day was 73°. Strawberries have begun to come to market from our gardens, and are brought abundantly from Cincinnati. Cherries begin to be ripe. Fields of winter wheat and rye were finely headed some days since, and the promise of harvest is so far fine.

A Special Premium—A Chance for the Ladies.

In addition to the very liberal list of premiums which we offer to all who send us the names of subscribers to the present half volume of the *Genesee Farmer*, (see last page,) we now offer a new and splendid premium, which will interest every one of our lady readers.

We have for some time used one of the Universal Clothes Wringers, and find it every way an excellent and efficient machine, wringing the clothes dryer than can be done by hand and in the most expeditious manner. And it can wring all the clothes of a large washing.

The price of this machine is \$7.00.

Now, we will send this machine, prepaid, by express to any person who will send us 40 subscribers to the *Genesee Farmer* for one year at 50 cents each; or 80 subscribers to the half volume at 25 cents each.

Our subscribers need not be all at one post office. We will send the papers to as many different post offices as is required. Now let us see who wants a Wringer. We can assure our fair readers that it is a good thing.

American Pomological Society.

In conformity with a resolution adopted at the last meeting of this National Association, the undersigned, President, gives notice that its ninth session will commence at the Hall of the Mass. Hort. Society, corner of Washington and West streets, Boston, Mass., on Wednesday, the 17th, 1862, at 12 o'clock, noon, and will continue for several days. All Horticultural, Pomological, Agricultural and other kindred institutions in the United States and the British Provinces, are invited to send delegations as large as they may deem expedient, and all other persons interested in the cultivation of fruit are invited to be present, and to take seats in the convention.

The present season promises to be the most propitious for fruit that has occurred for many years, and it is anticipated that the coming session, which takes place at the same time with the annual exhibition of the Massachusetts Horticultural Society, may be made one of the most interesting which has ever been held by the Society. All States and Territories are urgently invited to be represented by delegation, at this meeting, that the amicable social relations which have heretofore existed between the members of the Society may be fostered and perpetuated, and the result of its deliberations, so beneficial to the country at large, be generally and widely diffused.

Among the prominent subjects to be submitted at this session will be the report of the special committee appointed to revise the Society's catalogue of fruits, and to ascertain what varieties are adapted to the different sections and districts of our country. The various State and Local committees who have not already made their reports on the revision are therefore solicited to forward them, without further delay, to P. BARRY, Esq., Rochester, N. Y., chairman of said committee. And it is further requested that all other reports, which are by the By-laws made returnable to the General Chairman of the Fruit Committee, now deceased, may also be addressed to Mr. BARRY, as aforesaid.

Members and delegates are requested to contribute specimens of the fruits best adapted to their respective

districts—to furnish descriptions of the same, their mode of cultivation, and to communicate whatever may aid in promoting the objects of the Society and the science of American pomology.

Each contributor is requested to come prepared with a complete list of his collection and to present the same with his fruits, that a report of all the varieties entered may be submitted to the meeting as soon as practicable.

All persons desirous of becoming members can remit the admission fee to THOMAS P. JAMES, Esq., Treasurer, Philadelphia, or to the President, at Boston, who will furnish them with the Transactions of the Society. Life Membership, ten dollars; Biennial, two dollars.

Packages of Fruits may be addressed as follows: "American Pomological Society, care of Massachusetts Horticultural Society, Boston, Mass."

MARSHALL P. WILDER, Pres.

THOMAS W. FIELD, Sec.

The Markets.

OFFICE OF THE GENESEE FARMER. }
ROCHESTER, N. Y., June 25 1862.

SINCE our last report, the price of wheat has advanced from 4 to 8 cents per bushel. The reports in regard to the growing crops in England have been less favorable, and this, together with the high rate of exchange on London, has tended to give greater firmness to our markets. During the past week, however, ocean freights have advanced, and this has had a depressing effect on prices in New York. Still, as we have said, prices are on the whole 4 to 8 cents better than a month ago.

In New York yesterday, corn was 1 cent lower; sales of Western mixed at 50@51c. Oats steady at 43@45c. Rye firm at 62@69c. for Western, and 73@74c. for State. Barley, 65@75c. White winter wheat, \$1.22@1.33; sales yesterday of good winter red at \$1.15. Beans are wanted; medium, \$2.00@2.70; marrows \$2.65@2.90.

Eggs are lower—10½@12½c. per dozen. Butter is in good supply; heavy sales of Ohio in New York at 14½@15c.; State firkins, 15@17c.; common, 12½@15c. Cheese is in demand, and receipts light—new State, 6½@7c.; Ohio, 6@7c.

Hay in demand—sales in bale at \$12@15 per ton.

Wool is in active demand. As we predicted last month, prices are quite firm and likely to continue so for some time. Farmers, however, can now get good prices, and, while we would be in no hurry to sell, it is usually the best way to accept a good offer. Money never was so abundant, and this is favorable to speculation and high prices. In Ohio, one of the best wool States in the Union, farmers ask 50c.; 46 to 48c. is freely paid for medium wools, while as high as 52c. has been paid for some extra fine. In this section, 40c. is paid for good clips, and 45c. for extra.

NEW YORK CATTLE MARKET.—Last week beef cattle receded ½c. per lb., owing to the large supply, principally from Illinois. Sales generally at 7½@8½c. The same is true of this week.

Sheep advanced 3½@50c. a head. A few quite fat @5c. per lb. live weight. Lambs plenty at 7@7½c., live weight, and occasionally 8c.

Milk cows are in better demand.

Swine are lower—corn-fed Western, \$3 12½@3.30 per cwt.

Horses—Sales light, but prices firm. One pair of fine bays sold at \$50; some second class, \$30@45 per pair. Draft horses in demand at \$17½@225 each. Common pairs for farm, \$25@325 per pair. Con ractors for Government are purchasing all that arrive. Last week they purchased 300 head at about \$48 each.

MONEY LOST IN THE MAIL.—Whenever money is lost in the mail, we always send the paper just the same as though the money had been received. We have lost more money this year than usual, especially from Canada. Previously, remittances from Canada almost invariably came safely to hand, but this year there is evidently something wrong on the route. The post office authorities should look into the matter.

Money may be mailed at our risk, but there is one rule which we wish our friends to observe. Do not say a word to any one on the subject. Mail the letter yourself, and it will generally come safely. If not, it is our loss. If the papers do not come by return mail, write and inform us of the fact, and the papers will be sent.

Agricultural Items.

At a recent meeting of the Royal Agricultural Society of England, Prof. Voelcker delivered a lecture on "Town Sewage as a manure." He estimated that the sewage of London is worth three cents per ton, delivered on grass land. This seems small, but it is higher than is obtained for the sewer of Edinburgh, which is used on the meadows near that city.

In Ogle county, Illinois, the wheat crop is said to be almost a total failure. Hundreds of acres have been plowed up on account of the ravages of the Chinch bug and Hessian fly. Farmers are offering their wheat for the cost of seed. In Iowa, too, much wheat has been plowed up from the same cause, and replanted with corn.

At the last Meeting of the New York Farmers' Club, SOLON ROBINSON asked the Club to adopt the following as one of its rules:

"The object of conversation is to entertain and interest. To be agreeable, you must learn to be a good listener. A man who monopolizes a conversation is a bore, no matter how great his knowledge."

PASCHALL MORRIS thinks the Chester white pigs, now so much talked about, originated at least thirty years ago, by crossing a Bedfordshire boar, imported into Chester Co., Pa., with the best stock of the country. They are now considered a well established breed.

ADDISON GARDINER, Esq., of this city, has purchased a splendid short-horn bull from JAMES O. SHELTON, Esq., of Geneva, N. Y. Mr. S. has also just sold a fine young short-horn bull to E. G. MORRIS, and another to B. A. HUNTINGTON, of Rome, N. Y.

ABD-EL-KADER has sent to the Emperor NAPOLEON two magnificent horses of the Semen breed, the purest existing in Arabia, and which the ex-Emir says must have descended in a direct line from the famous mare of the Prophet.

JOHN JOHNSTON, an experienced farmer of Seneca Co. says he never knew anything very low without high prices following. On this account, when grain is low he tries to raise more than usual in anticipation of better prices.

HALLER's Pedigree Wheat is advertised in three languages at the great International Exhibition, the letters, from seven to eight inches in length, consisting of ears of the wheat advertised!

W. H. LOCK, a well known Devon cattle breeder of Canada, has moved to Champaign Co., Ill.; where he has purchased a farm of 1,300 acres. He takes his large herd of Devons with him.

DR. GEO. H. DADD, the author of several veterinary works, has opened an academy for the study of veterinary science, in St. Louis, Mo.

JOHN WILSON, a Scotch farmer, has written a book on British Farming, or a description of the mixed husbandry of Great Britain.

THE Seneca County (Ohio) Agricultural Society has offered a prize for the largest number of shade trees set out by one person.

M. FOULD, of France, has recently paid \$5,700 for a stallion—the highest sum ever given for a horse in that country.

CALIFORNIA exported \$4,000,000 of grain and flour last year, and over \$1,000,000 of wool and hides.

Literary Notices.

REPLIES TO ESSAYS AND REVIEWS. By Seven Clergy men of the Church of England, with a Preface by the Lord Bishop of Oxford. New York: D. APPLETON & Co.

These Essays, like those to which they are replies, "were written in entire independence of each other, without concert or comparison." In the preface, the Bishop of Oxford says that the publication of this volume is no admission that new and powerful arguments against the truth have rendered necessary new arguments in its defence, but that the object is rather by stating the truth clearly to show that these re-varnished objections are neither new nor profound. This is precisely what is needed, for many minds are struggling with these apparently first rationalist doubts, not knowing that they are really contending with the resuscitated dead of the infidelity of a past age. The names of the authors of these Essays give guarantee that this purpose is thoroughly carried out.

CONSIDERATIONS ON REPRESENTATIVE GOVERNMENT. By JOHN STUART MILL.

This book should be extensively read, for there has been no time in the history of our country when it was more necessary that every man should understand the theory on which our constitutions are based, and appreciate fully both the benefits and the dangers which may accrue from them.

LEISURE HOURS IN TOWN. Boston: TICKNOR & FIELD.

The Recreations of a Country Parson were very charming from their freshness, and these are exceedingly pleasant. Most of them have been already published in the *Atlantic Monthly*. The paper on The Laird and his Preaching is admirable.

THE PEARL OF ORR'S ISLAND. By Mrs. H. B. STOWE. AGNES OF SORRENTO. By Mrs. H. B. STOWE.

Mrs. STOWE has not added to her reputation by these books. They are readable, but by no means worthy of the author of Uncle Tom's Cabin.

THE LAST OF THE MORTIMERS. By the author of Margaret Maillard, etc.

A novel quite different in plot from those which preceded it, and very entertaining in a quiet way.

A BOOK ABOUT DOCTORS. New York: RUPP & CARLTON.

A cleverly written, anecdotal collection of sketches of the lives of doctors and the customs of the medical profession.

THE BOOK OF DAY: A Miscellany of Popular Antiquities in connection with the Calendar, including Anecdotes, Biography and History, Curiosities of Literature, and Oddities of Human Life and Character. Philadelphia: J. B. LIPPINCOTT & Co. Edinburgh: W. & R. CHAMBERS. Parts 1 and 2. Price, 6 cents.

We give the entire title page, as it is as good a description of the work as can be written. Each day in the year has witnessed since the world began some incident of note, and, as far as possible, these are gathered here. The two parts already issued contain the tales of the first seventeen days in the year. The second commences with an account of the Carnival, and ends with the story of St. Anthony and the pigs. The illustrations are numerous.

FARMERS' ADVERTISER. — Mr. SHELBY REED, of Scottsville, informs us that in that town, at his suggestion, a book is kept at the Post Office, open to public inspection in which are entered the names of persons who have anything which they wish to dispose of, such as live stock, seeds, implements, tools, or anything in the farmer's line. It forms an admirable means of communication between the farmers of the town, and meets with great favor.

LONG LIVE KING WOOL.—"King Cotton is Dead." Its correspondent of the *Prairie Farmer* thinks "King Wool is here apparent." The falling off in the supply of cotton will increase the demand for wool. Wool is king. Long live King Wool!

The Genesee Farmer for June.

EDS. GENESSEE FARMER:—We (myself and others) have read considerably in the last *Farmer* to-day, and consider it an extra number. The Horticultural Department, the "Walks and Talks in the Garden" in particular, is very interesting, especially when we too "want rain" so much. Is it because we are "bad farmers?" We don't believe it is. Let the soil be ever so rich, and light, and well cultivated, and it may suffer for want of rain, we believe. So does the Editor, we guess.)

The Ladies' and Miscellaneous Departments add much to the interest of the *Farmer*. The many illustrations we don't overlook. We have quite a speciality—*not partiality*—for pictures. The children have. We take a picture paper, "illustrated." We believe in "Improvement," "Progression," and all these sort o' things taught us in the "books," and are glad that the Editor of the *Farmer* is "in" for the same applied to his journal. A long and "progressive" life to him and to the *Farmer*.—I. W. SANBORN.—*The Meadows, Lynden, Vt.*

GENESSEE FARMER FOR JUNE.—That staunch old journal, the *Genesee Farmer*, opens with a well-written article on the cultivation of root crops. "Management of Honey Bees" is by T. B. Miner, formerly editor of the *Rural American*. Among other articles, are "Irrigation for Pear Trees, Strawberries, etc.," "Walks and Talks in the Garden, No. Two," "Wheat Pedigree," "Steeping Barley for Sheep," and "Irrigating Meadows." Joseph Harris, publisher, Rochester, N. Y.—N. Y. *Methodist*.

THE *Genesee Farmer* for June is received, and, as usual, we find it brimful of excellent reading for farmers. Over and over again we have commended this journal to our readers' favor, and we again repeat our advice to all who are at all interested in soil-culture to obtain it. Only 50 cents a year; 6¢ cents for postage.—*Republican Watchman*.

THE GENESSEE FARMER.—The June issue of this welcome and reliable Agricultural Monthly is promptly on our table, and as usual is filled with reading interesting to the agriculturist. The low price at which it is offered places it within the reach of every one, and no tiller of the soil should be without it.—*Repository and Messenger*

GENESSEE FARMER:—The June number of this monthly is received. The *Farmer* is one of the most valuable journals of its class published. We will receive subscriptions for the half volume ending with December.—rice, 25 cents.—*North Western, Wisconsin*.

THE *Genesee Farmer* for June has arrived. It is one of the best numbers issued in the present volume. It can be seen at the Post Office, where subscriptions are received for it.—*Cayuga, (C. W.) Sentinel*.

Inquiries and Answers.

CLOVER SEED.—(S. M.) The first crop of clover should be cut early. If not already done, mow it at once. There is nothing more to be done. If a bushel of plaster be sown per acre soon after the first mowing, it will frequently increase the produce of the clover, but it is said that it retards the ripening of the seed.

WHAT SHALL I SOW AMONG CORN THAT MISSED?—(BENJ. LILLING.) If not too late, beans may be planted. Some sow buckwheat. If the soil is moist and in good condition, sow some white turnips broadcast—not ruta bagas. We have known an excellent crop raised in this way. They should be hoed, and thinned out to at least a foot apart.

FARM WANTED.—Western New York is noted for wheat and fruit culture. Would you or some of your correspondents be kind enough to say in the *Genesee Farmer* what the facilities are for obtaining farming lands, and if it would be easy for a man of small means to do so? In Canada West we can get a tolerable farm, on time, for about \$30 per acre, with about half of it cleared, and not

too far from stores, schools and churches. What would be the cost of a similar place in your State? or if there be none within those means or of an industrious, energetic man, where would be the next best place, taking markets and the prospects of succeeding into account? The seasons here are rather short and cold for profitable fruit culture. An answer would oblige—CANADA, *Prescott, C. W.*

It will not be difficult for you to get a good wheat and fruit farm in Western New York. The price, of course, will vary considerably, according to location, improvements, &c. Perhaps \$50 per acre would be about the average price for a good wheat and fruit farm.

SUGAR EVAPORATOR.—I have planted over an acre of sorghum, and intend to make sugar, or syrup at least. What is the best process? I am told that there are Evaporators manufactured at the West, that facilitate the operation greatly. Can you tell me where they are manufactured, the price, and which is the best?—H. C. Ogden, *Monroe Co., N. Y., June 6th, 1862.*

Will some of our readers, who have had experience, answer the above? We have grown sorghum, but never made sugar from it. We are experimenting with it this year, and should be glad of all the information we can obtain on the subject.

GRADES OF SPRING WHEAT.—(G. C.) The grades established by the Chamber of Commerce of Milwaukee are as follows:

No. 1 Spring must be sound, well cleaned wheat, weighing not less than fifty eight lbs. to the measured bushel.

No. 2 Spring must be sound, and weigh not less than fifty-five lbs. to the measured bushel.

Extra Spring must be pure club sound, well cleaned, and weigh not less than sixty lbs. to the measured bushel.

RANCID BUTTER.—(M. P.) We have not ourselves tried the chloride of lime remedy. We presume it is effectual. Working the butter in strong brine and allowing it to stand on the butter for twenty-four hours is said to be good. If too salt, wash the butter in fresh water before using. Will some one who has had experience in this matter give us information on the subject?

SEVERAL INQUIRIES.—1st. Is it advisable to roll corn or small grain in lime, previous to planting or sowing it?

2d. How is clover and timothy seed cleansed?

3d. How can worms on Apple trees be effectually destroyed?

4th. This spring I manured corn in the hill with unleached ashes and hen manure, putting in a handful, dropping the corn by the side of it. The corn was completely eaten up with wire worms, and had to be planted over. How should it have been applied?

BEANS FOR SHEEP.—B. F. TABER, of Cayuga Co., writes us that he intends to raise a crop of beans every year, more or less to feed his sheep, his experience "in feeding them last winter and spring having satisfied him of their superiority for keeping the sheep in first-rate condition, growing a large fleece of wool and making milk at lambing time, besides improving the manure."

AGRICULTURAL LIBRARIES IN MASSACHUSETTS.—W. BACON, of Richmond, Massachusetts, states in the *Country Gentleman*, that there are two hundred public agricultural libraries in that State, nearly two to every three towns. He well remarks that such libraries are of incalculable value, and are now easily obtained.

ADVERTISEMENTS.

A FEW short advertisements of interest to farmers—and only such—will be inserted in the *Genesee Farmer* for twenty-five cents a line, or \$2.50 per square, each insertion, payable in advance. To secure insertion, they should be sent in by the 15th of the previous month. The *Farmer* has large lists of subscribers in every State and Territory, and in all the British Provinces. (It has nearly 5000 subscribers in Canada West alone.) There is no better or cheaper medium for advertising everything of general interest to rural residents in all parts of the United States and Canada.

We will also insert a few "Special Notices," if appropriate to our columns, at fifty cents a line.

MOLE PLOWS—By J. DUNHAM, Ithaca, N. Y. 3—tf

WANTED—By a practical Vintner, Gardener, Florist and Nurseryman, thoroughly acquainted with the Culture of the Grape, and a practical knowledge of the Nursery business, &c., &c., a Situation as Superintendent, or to take charge of a Vineyard on shares. Can give No 1 references as to ability and character. Apply at the office of the *Genesee Farmer*, or address A. B. C., Versailles, Woodford Co., Ky., lock-box 131. 7-3t

ITALIAN BEES.

ITALIAN QUEENS of brilliant color, purity guaranteed, forwarded by express to any part of the United States. Price, \$5 00. Cash to accompany the order.

No Dark colored Queens sent out from our Apiary.
BAKER & TAYLOR,
Hulmeville, Bucks County, Pa.

April—4t

Back Volumes of the Genesee Farmer.

WE have the back numbers of the *Genesee Farmer*, handsomely bound, for the years 1846, 1847, 1848, 1849 1-53, 1855, 1856, 1857, 1858, 1859, 1860 and 1861. They will be sent free to any address for \$1.00 each. The last six volumes, from 1856 to 1861 inclusive, handsomely bound, will be sent free by express, or by mail postage paid, for \$5.00. Address

JOSEPH HARRIS,
Publisher and Proprietor of the *Genesee Farmer*,
Rochester, N. Y.

TURNIP SEED.

J. M. THORBURN & CO.,

15 John Street, New York.

OFFER of the best and purest stocks

	Per oz.	Per lb.
Early White Dutch Turnip	10c.	75
Tri e Berlin Tellow do	10c.	\$1 00
Black German do	10c.	1 00
Red Top Strap Leaf do	10c.	75
Red Top Plain Leaf do	10c.	75
White Strap Leaf do	10c.	75
English White Globe do	10c.	50
English Green Globe do	10c.	50
English White Norfolk do	10c.	50
Long White Tankard do	10c.	50
American Cow Horn do	10c.	50
Vertue's Long White do	10c.	1 00
Swan's Egg do	10c.	75
Fine Yellow Stone do	10c.	75
Waite's Eclipse do	10c.	50
Yellow Ab-r-leen do	10c.	50
Robson's Golden Ball do	10c.	75
Yellow Finland do	10c.	1 00
Dale's Hybrid do	10c.	50
Long White French (one of the best) do	10c.	75
Improved Ruta Baga (American) do	10c.	75
White Ruta Baga	10c.	50
Stirling's Improved Ruta Baga	10c.	50
Purple Top do	10c.	50
Marshall's Purple Top do	10c.	50
Bullock's Heart do	10c.	50
Dickson's Improved do	10c.	50
Laing's Improved do	10c.	50
Ashcroft's do	10c.	50

J. M. THORBURN & CO.,
15 John St., New York.

N. B.—Now is the time for sowing Seeds of the

SCARLET MAPLE,
SILVER LEAVED MAPLE,
AMERICAN ELM,

Each per pound \$2; per once 20c.

WOOD'S MOWING AND REAPING MACHINES.

MANUFACTURED BY

WALTER A. WOOD, Hoosick Falls, N. Y.

WOOD'S NEW MOWER.

THE Machine is too well known to need description, it having been awarded the highest prizes throughout this country from the three last United States Fairs down to State and County Fairs without number, also at the great French and English Exhibitions, where it has borne away the highest prizes ever offered for Harvesting Machines.

There were 50 0 of these Mowers manufactured and sold by Mr. Wood last season, which is the best evidence that the heavy complicated Mowers are being succeeded by lighter, cheaper and more practical Machines. This Machine has no side draft, and will do more work with the same power than any other Machine in the market.

Wood's Self-Raking Reaper and Reaper and Mower Combined.

I have during the past year reconstructed my Self-Raking Reaper and Mower, and offer it to grain growing farmers, either as a Reaper alone, or as a Self-Raking Reaper and Mower Combined, in a form which I am sure will give entire satisfaction to any grain grower, who desires to cut his grain in the most expeditious and economical manner.

The capacity of this Reaper, combined with its perfectly easy draft, fits it as well for the most extensive grain grower in the country, as for the small farmer of eighty acres.

I made and sold this Machine last year, as now constructed, to an extent that warrants me in recommending it fully.

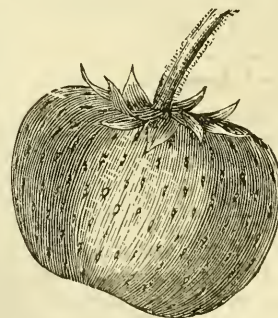
The Reaper I warrant capable of cutting and delivering 20 acres of grass per day, doing the work better than is usually done by hand rakers, and with less draft to the team. The Mower cuts a fifty-four inch swath, and is warranted equal to any in the market. I continue, as heretofore, to manufacture the Manny Combined Machine, with my latest improvement, to which I attach the Self-Raker if desired.

Full descriptions of Machines will be found in pamphlet which will be furnished on application to myself or any agent.

Price of Wood's Self-Raking Reaper, delivered on the cars at Hoosick Falls	\$125 00
" Self Raking Reaper and Mower Combined	160 00
" Single Mower	80 00
" Manny Combined	125 00
" " Self-Raker attached	150 00

WALTER A. WOOD, Hoosick Falls, N. Y.
PERINE & STEWART, Agents,
Mumford street, Rochester, N. Y.

Great Austin Shaker Strawberry.



THE berries of this remarkable variety are much larger than any other kind cultivated in this country. It produces extraordinary crops, and the fruit is very attractive, being of a fine scarlet color. The Austin was exhibited at the office of the *American Agriculturist* last year, weighing one ounce. Nearly 1,000 boxes were sent from Water-viet last year, a distance of 160 miles, and sold to Taylor, corner Broadway and Franklin streets, N. Y., for 80 cents per quart, proving the Austin to be

one of the most profitable market berries in cultivation.

Our stock of plants is very large and fine, at the following rates: 30 plants, \$1 00; per hundred, \$2 00; per thousand, \$15 00.

We commence delivering plants on the first of August, in rotation as ordered. Address either

CHAUNCEY MILLER, Albany, N. Y., Shaker Trustee, or
WM. S. CARPENTER, 329 Greenwich Street, New York.

CIDER PRESS SCREWS—5 feet long, 4 inches in diameter.—These powerful Screws bring out a third more juice than portable presses. Send for a circular. Made by July—21* L. M. ARNOLD, Poughkeepsie (N. Y.) Foundry.

500 AGENTS WANTED—In every town, to sell our 12 newly patented articles, wanted in every family. Agents make \$5 00 per day. Send stamps for Circular.
* S. W. RICE & CO., 434 Chestnut St., Philadelphia, Pa.



Universal Clothes Wringer.

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IT SURPASSES ALL OTHERS IN
Strength of Frame!

Capacity for Pressure!

Power of Action!

WE CHALLENGE THE WORLD!

We Defy all Competition!

WE WARRANT EACH ONE IN EVERY PARTICULAR.

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To men who have had experience as canvassers, or any who would like to engage in the sale of this truly valuable invention, liberal inducements will be offered and good territory given them by paying nothing for the Patent Right) in which they shall have the exclusive sale.

This Wringer is made by
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Under the following patents:

The Improved Patent Cog Wheel Regulator—
It saves friction of the clothes, and prevents the rolls from wearing.

The new Patent Method for Fastening the Roll to the Shaft—
Never blacks the clothes.

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Can not work loose from its place.

Wymann's Patent Adjustable Gauge, for different sized tubs—
Thick or thin, straight, slanting, or circular.

RODNEY'S PATENT (of which they are the exclusive owners) for the right to make, sell and use Vulcanized India Rubber Rolls or Covered Rolls for Washing, Wringing, or Starching Machines.

Any one making, selling or using any Wringer (the user as well as the maker), the rolls of which were not purchased of him, and a license obtained to sell and use the same, are infringing on their rights, and will at once be prosecuted according to law. After an expensive litigation in the UNITED STATES COURTS, the suits are terminated and injunctions issued against the infringers. The parties prosecuted have settled for past infringements and are now acting under licenses, which (with their supply of India Rubber) they obtained from them with the right to use it for other Wringers (they paying a tariff on all sold), but under the most careful restrictions as to terms and prices, both wholesale and retail.

All licensed parties will have a certificate, showing their rights and authority. The public should beware of all canvassers for Wringers who can not produce such certificate—they are bogus.

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Price, \$15.

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RECENT and important improvements having been put to this Machine renders it now the most perfect before the public, and persons at a distance can order a Machine with a guarantee of its prompt and safe delivery, and that they will be able to manage it to their entire satisfaction. No more breaking needles! No more missing stitches! No trouble in making any garment, however delicate or heavy, on the same Machine, either in cambric, cloth, or leather. No person should think of purchasing a Sewing Machine without first seeing this—the latest and greatest triumph of the original inventor of the Sewing Machine.

Send for a Descriptive Catalogue of styles and prices. A few responsible Agents would be dealt with liberally. Address
THE HOWE SEWING MACHINES,

July, 1862.—211

437 Broadway, New York.

Show and Sale of South Down Sheep.

PROVIDENCE permitting, my Twelfth Annual Sale of Yearling Rams, Ram and Ewe Lambs, will take place on WEDNESDAY, Sept. 3d, 1862.

Having used Mr. Webb's choice stock Rams the past four years on my flock, and imported the best Breeding Ewes from his flock. I can with confidence invite the attendance of a Sheep-Breeders at said sale, when I hope to show size, thrift, wool and fine quality surpassed by no flock in any country. Please send for circular. Particulars about routes, &c., in August papers as well as in circular.

June—21

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Holmdel, N. J.

FOR SEWING MACHINES.

JONAS BROOK & BROTHERS'

PRIZE MEDAL SPOOL COTTON,

200 or 500 yard spools, White, Black, and Colored.

FOR MACHINES, use BROOK'S PATENT GLACE for upper thread, and BROOK'S SIX CO' D RED TICKET for under thread. Sold by all first class dealers in city and country; also in cases of 100 dozen each, as ordered numbers, by WM. HENRY SMITH, Sole Agent, 26 Vesey street, New York. Ja—1y

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WANTED—A few intelligent, active and trustworthy business men as Agents to solicit orders for Trees, Plants, Shrubs, &c., deliverable in the Fall of 1862. A liberal commission offered. Address
FROST & CO.,
Proprietors of the Genesée Valley Nurseries.

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FOR SALE—Of both sexes, and of various ages. For pedigrees and full particulars address me at Victory, Cayuga Co., N. Y. July—31

GEO. B. LOCKWOOD.

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JOSEPH HARRIS,
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*Agencies in all the principal Cities and Towns in the
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THE GROVER & BAKER S. M. CO.

NOW OFFER IN ADDITION TO THEIR

SPLENDID STOCK OF MACHINES,
MAKING THE CELEBRATED

GROVER & BAKER STITCH,

NEW AND SUPERIOR

Shuttle, or "Lock-Stitch" Machines,

ADAPTED to all varieties of sewing. Much more Simple,
Durable, Noiseless and Perfect than any other "lock-stitch"
machines heretofore in use.

The Grover & Baker machines have taken the first premiums, over all competition, at every State Fair where they were exhibited last year.

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PIANOS,

THE BEST AND MOST DURABLE.

Our large, elegant and superior Pianos of 7 and 7½ Octaves at low price for Cash.

PIANOS FOR SMALL PARLORS,

6½ and 7 Octaves, elegant and durable.

All our Pianos have the

Insulated Iron Rim,

Giving strength and durability, and requiring less than half the usual amount of tuning.

ROSE-WOOD YOUNG AMERICA PIANOS,

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June—81

ALBANY, N. Y.

THE FIVE CENT MONTHLY MAGAZINE!

The Cheapest and Best Literary Magazine in the Country.

EACH number contains 82 bound pages of Choice, Original articles on a great variety of subjects, interspersed with Poetry, &c.

After the issue of the number for June next, the Five Cent Monthly will contain NO MORE CONTINUED STORIES, so that each number shall be a complete book of itself.

SUBSCRIPTION PRICE ONLY FIFTY CENTS A YEAR.

Persons sending the amount of subscription will receive the Monthly free of postage. Specimen copies will be sent to any address upon receipt of five cents. All communications should be addressed to

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PUBLISHERS OF FIVE CENT MONTHLY,
No. 3 Tremont Row, Boston, Mass.

June—21

Half Volume of the Genesee Farmer.

SPECIAL PRIZES.

A HALF volume of the GENESEE FARMER commences with the next number. It will be sent to any address for twenty-five cents, and the following Premiums will be paid to all who send us subscribers.

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1. To any person sending us the names of *two* subscribers for the coming half volume of the *Genesee Farmer* at 25 cents each, we will send, prepaid by return mail, a copy of *The Young Housekeeper and Dairymaid's Directory*, by Mrs. ELIZA A. CALL or one copy of the *Rural Annual and Horticultural Directory* for 1860 or 1861.

2. To any person sending us *four* subscribers to the half volume at 25 cents each, we will send, prepaid by return mail, two copies of the *Rural Annual and Horticultural Directory* for any years that may be wished.

3. To any person sending us *six* subscribers to the half volume, at 25 cents each, we will send, prepaid by return mail, a copy of *Liebig's Animal Chemistry*, or *three* volumes of the *Rural Annual*.

4. To any person sending us *eight* subscribers to the half volume, at 25 cents each, we will send, prepaid by return mail, one copy of the *Farmers' Practical Horse Farrier*. Price, 50 cents.

5. To any person sending us *ten* subscribers to the half volume, at 25 cents each, we will send, prepaid by return mail, one copy of the *Genesee Farmer* for 1856, nicely bound in stiff paper covers. Price, 75 cents.

6. To any person sending us *twelve* subscribers to the half volume, at 25 cents each, we will send, prepaid by return mail, a copy of *Rogers' Scientific Agriculture*, or a bound volume of the *Genesee Farmer* for 1860 or 1861. Price of the latter, \$1.

7. To any person sending us *fourteen* subscribers at 25 cents each, we will send, prepaid by return mail, a copy of Mrs. S. J. HALE'S *Modern Cookery*. Price, \$1.00.

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To any person sending us *ten* subscribers to the half volume at 25 cents each, we will forward, prepaid by mail, to any part of the United States one Delaware grape vine

For *sixteen* subscribers, *two* Delaware grape vines.

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The grape vines will be sent in time for planting next fall.

We offer these Premiums for subscribers to the half volume commencing with the July number. The first six numbers of this year can still be furnished, and one subscription to the whole volume, at 50 cents, will count the same as *two* to the half volume, at 25 cents each.

Money may be sent at the risk of the Publisher

Address

JOSEPH HARRIS,

PUBLISHER AND PROPRIETOR OF THE GENESEE FARMER,

June 1, 1862.

ROCHESTER, N. Y.



There were but 63 entries of Devons. The gold

medal cow was as handsome as a picture—one of the most perfect specimens in the yard. It is thought that the Devons do not show that improvement which marks the Herefords. They were as good thirty years ago as now.

The Ayrshires were admirably represented.

The other breeds, including Sussex, Long-horns, Norfolk and Suffolk polled, Irish Kerries, Gallo-ways, etc., etc., were all there, but we have not space to allude to their merits.

The sheep constituted a grand feature of the Fair. There were 640 entries, exclusive of the Scotch and foreign entries.

Cotswolds were out in great force. There were 90 entries of this breed. The Leicesters, Lincolns, and other long-woolled sheep turned out handsomely. The South Downs, Oxford Downs, Hampshires and Shropshires were all there, each good after his kind.

There were 200 entries of pigs—all of unusual excellence, excepting, perhaps, the Berkshires. The Suffolk and Yorkshire Middle breeds were the champions. The large breeds are less popular, and are said to be going out of fashion, even in Yorkshire.

Of horses, there were 280 entries. The *Mark Lane Express* thus tersely sums up this part of the Fair: "The cart horses were very good, the coach horses very fine, and the riding horses very bad!" Of agricultural horses, the Suffolks and Clydesdales were the two principal breeds. It is the character of these that determine the character of this department of the show. In this case, they were excellent. The Suffolks well sustained their reputation as light and active but strong and powerful farm horses. The Clydesdales were not numerous, but they were a well selected lot. Considering their immense size and weight, many of them showed considerable action, and moved their shaggy legs with an ease that approximated to gracefulness.

In the foreign classes were shown six breeds of French cattle, and also some from Holland and Switzerland. There were no foreign heavy draught horses, and few of any kind. There were also some excellent French, Spanish and Saxon Merino sheep exhibited. To this department of the great show, we may allude at some future time.

AGRICULTURE IN OUR COMMON SCHOOLS.—A correspondent of the *N. E. Farmer*, JOHN GOLDSBURY of Warwick, objects to the introduction of the study of agriculture into our common schools, on the ground that teachers already have enough else to do, and because they are not qualified to teach it.

AN OLD AGRICULTURAL PAPER.

We have had in our possession for some time several volumes of a monthly agricultural journal, started in London in the year 1763, called the *Museum Rusticum et Commerciale*.

There is a frontispiece to the first volume, showing a collection of agricultural implements: a man with a broadaxe cutting down a tree, a boy shearing a sheep, a young woman with a spinning wheel, and a man plowing with three oxen *tandem*! The picture well indicates the condition of agriculture in Britain at that time.

The articles are exceedingly well written, and are mostly on subjects still discussed in our agricultural papers. For instance, the first article is on the Kentish method of gathering and curing hops; the second, on the culture of flax in Ireland; the third, on trees and shrubs which will thrive near the sea, in which the mulberry is recommended. Next we have a new method of cutting wheat: "using a scythe six inches shorter in the blade than the common scythe, and instead of a cradle, two twigs of osier put semicircular-wise into holes made in the handles of the scythe, near the blade, in such a manner that one semicircle intersects the other."

The next article is "on the manner in which canary seed is raised." Turn over an old scythe, bring it "into tolerable fine tilth," and sow peas. These are hoed. After peas, sow beans, and keep them clean with frequent hoeings. "These two crops effectually kill the greensward or grass, turn off the rankness of the soil, and the frequent hoeings, which are necessary to keep the weeds under, bring the land into fine tilth. After the beans are off, the land gets a thorough plowing, and is then left till spring: about the beginning of March the weather is fine and the season dry, the land gets its last plowing; immediately after which the canary seed is sown."

This is certainly good culture, and the practice of cleaning land by planting two hoed crops in succession might be, even now, frequently adopted with advantage.

The writer then proceeds to say that formerly it was the custom to sow broadcast, but "they found it very difficult to hoe and keep clean from weeds;" so "at present they sow it in furrows made across the lands, constantly taking care to make the ridges between the furrows as sharp as possible; by this means, the seed, which is sown by hand, slips from the ridges into the furrows, and the plants come up in regular rows." The editor remarks in a foot note, that "this is a faint im-

on of the *new method* of husbandry invented by Mr. TULL."

Three pecks of seed were sown per acre, and the field was from 25 to 50 bushels.

Next we have a letter from the Rev. Mr. JACKSON, "on the causes of rank, coarse meadows, and cultivating cabbage as food for cattle." He had a meadow that was "wet, pouchy, overrun with rushes and flags, and the little grass that grew on it was coarse and rank." He thought at first "it was owing to some deficiency of the soil." [We infer from this that there was the same talk about exhaustion of the soil in those days as now.] However, he dug deep drains to carry off the superfluous water, and then had the land covered with coal ashes and plowed. Thinking this was not deep enough, he hired "several stout laborers and agreed with them to dig it two spits deep. He then planted cabbages and allowed four feet to each plant. At first," he says, "the plants seemed scattered, and at a great distance from each other; but they soon began to thrive apace. I took great care that the intervals were kept quite clear of weeds by frequent hoeing; and twice in the summer I caused them to be stirred with the spade: this had a surprising effect, and the plants grew to a wonderful size and weight, the land seeming entirely covered by them.

"When my crop of cabbages was come to perfection, I caused some of them to be boiled for my family use, and with great satisfaction found they were much sweeter than any I ever had from my kitchen garden: this I attributed, and perhaps not without reason, to the land not being dunged.

"Being at a loss what to do with my crop, which was not saleable in my neighborhood, I came to a resolution of giving them to my cows, which fed on them plentifully, and greatly increased in the quantity of milk they gave; but the milk had a disagreeable taste, as well as the butter which was made from the cream of it; but for this I soon found a remedy by using Hale's method of ventilating it.

"I afterwards, with some of these same cabbages, brought four large hogs so forward in flesh, that six bushels of barley meal made them all completely fat and fit for the pickling tub; and they turned out most excellent pork, without any rye-taste. I must, however, notice that I was at first obliged to cause the cabbages to be boiled for the hogs, to induce them to eat hearty; but they were soon by degrees brought to relish them raw.

"My poultry were extremely fond both of boiled and raw cabbages; and my draught horses, when it

was cut small, relished it much when mixed with oats, and seemed rather to thrive from the change of food; they also ate much less hay than usual.

"I was not at all displeased with my experiment, and I have every year since caused a piece of meadow to be dug and planted with cabbages for the above purpose.

"In the spring, I caused all the stalks to be pulled up, and the land strewn over with the sweepings of my loft and the bottoms of my haystacks, adding some seed of the sweet, white-flowered, or honey-suckle trefoil: I then ordered my workmen to fill up the drains with witch-elm faggots; over them were laid some large stones, and the whole covered with loose earth, sown with hay seed like the rest of the meadow.

"It is now five years since I laid it down again in grass, and there has not in that time been the least appearance of either rush or flag."

Next we have articles on the use of "sea-waure" (sea-weed) as manure, on the culture of "saintfoin," "on transplanting some trees in summer whilst they were in full leaf." This was done successfully by cutting in the branches so as to correspond with the loss of roots.

This writer also incidentally remarks that the bark on the north side of trees is thicker than on the south side, and that in transplanting care should be taken not to turn the trees round so that the thin and tender bark on the south side should face the cold north winds. The editor, however, remarks that "Mr. MILLER [We suppose the author of the *Gardeners' Dictionary*] says he has many times made the experiment, and could perceive no visible difference in the thriving of the plants."

A correspondent asks several questions which are left for the readers to answer—such as:

"What is the best method of managing upland pastures?"

"Might not tares or grey peas be to advantage sown, to use either as green or dry fodder?"

"What is the best method of flooding meadows?"

"How are flow meadows to be managed, and which is the best method of improving them?"

"Which is the best method of preserving the grass and destroying the weeds, in meadows and pastures?"

"What is the best manure for meadows and pastures, and at what season and in what manner is it laid on?"

"When land is to be prepared for wheat, is it not a good practice to sow tares or buckwheat, and plow them in, when in full sap, as a manure?"

"How are farmers to be prevented from spoiling young horses by putting them too soon to the collar?"

"In what cases are oxen or horses to be preferred one to the other?"

"Might not artificial ways of hatching fowls be with advantage practiced?"

Then follows "A letter to the editors, recommending the culture of vines in our North American colonies." The writer says he has "long thought that good wine might be made on the continent of North America. The extent of territory we possess there is amazing, and the diversity of climate such, that, in more than one of our colonies, vines may certainly with advantage be planted. I own it is to me astonishing, that none but partial and pusillanimous trials have yet been made in this important matter, in that part of the world. A few vines have, it is true, been planted without success. * * * * It is well known that a moist rich land is not proper for vines; yet on such kind of soils have vines been generally planted in America. Some have planted vines and suffered them to run up the neighboring trees; but little was to be expected from this method of planting them, as they could not enjoy the full benefit of the sunbeams, and they were too much exposed to moisture, not only from the dews, but from the perspiration of the trees which supported them. * * * *"

"It has, I know, been urged, that the grapes cultivated in America are very apt to burst before they are fully ripe; but this must either proceed from their having too much nourishment, or from the skins of the grapes being moistened by the damp vapor which proceeds from the neighboring woods. I have known, when a cherry tree in full vigor has been loaded with fine ripe fruit, that one night's rain has made all the fruit burst; moisture will have this effect on most kinds of fruit, particularly on cherries, plums, etc. * * * * I would earnestly recommend it to the planters in our several colonies, to try, with proper precautions, their success in planting vineyards: it would be easy for them to procure cuttings from the best vines which grow on the banks of the Rhine and Moselle; these would thrive well in Virginia, Pennsylvania, North Carolina, New York, and the province of Massachusetts; and able vignerons, for the purpose of dressing the vines, might probably be got, on moderate terms, from the Germans settled at the back of Virginia and Pennsylvania; and if not, many in Germany would be glad to remove."

Next we have an article recommending salt or old brine to keep moss from gravel walks in shady places.

In the next number, for October, 1763, we find it recommended to give salt to cattle, when turned into green clover, to prevent surfeiting, and "thereby greatly accelerate the fattening of the cattle and make it much safer for the farmer."

Farmer M— writes that he planted one-half of a field with "quartered" potatoes and the other half with whole potatoes. "The quantity of roots," he says, "was much the same in the two parts; that is, the part which was planted with quarters and that which was planted with whole roots, only the potatoes which grew from the last were largest."

A Berkshire farmer gives "a very easy method of increasing the milk of cows." It is simply to feed each cow a peck of malt dust each morning before milking.

"Next we have "A letter to the editors on improved methods of breeding seed wheat." The plan was to sow in drills two feet apart, hoe the land thoroughly, and earth up the wheat at the last hoeing. The result was a very superior quality of grain, and an increased yield per acre, while there was a great saving in the amount of seed required, as compared with the old broadcast system. In getting "seed for the next crop, the sheaves of this wheat were beaten lightly, so as to knock off only the largest, ripest and best grains."

We next have "An improved method of raising cucumbers." It is simply to train them up a wall with a southern aspect.

Then there is an article recommending farmers and gardeners to gather the leaves of trees and use them as manure.

The remainder of this number is occupied principally with articles on the cultivation of madder and sainfoin.

In the November number, the first article is on the destruction of timber, in which the editor's remarks:

"When a country happens to be over wooded, the madness of clearing it is often carried to excess. We have had many instances of this in England; and in some of our American colonies the border on the sea, the timber is so far destroyed through this madness of clearing, that even firewood is excessively dear; a horrid mistake! which one would scarcely have thought any man of common forecast could have been guilty of. But the misfortune is, that present profit, in general, governs the better of every other consideration."

Next we have an article on the "culture of the hog pea." It is said to "keep down the weeds."

and render the land in fine tilth for future crops." The grey pea makes "excellent food for hogs, which fatten on them sooner and better than on any other food."

Then follows an article on the "culture of turnips," in which it is recommended to dust the young plants with wood-ashes or soot to keep off the fly; it is also recommended to pass a light roller over the plants, and thus "crush and kill the flies." Sometimes, it is said, "turnips have been harrowed in after a crop of peas, without plowing, and have thriven amain."

We have also in this number, articles on the culture of burnet, which is said to grow like asparagus; on cole-seed and on timothy grass, which Lord MANNERS had just introduced from Virginia.

JEFFERSON AS A FARMER.

Capt. EDMUND BACON, a now aged and wealthy citizen of Kentucky, was for twenty years the chief overseer of JEFFERSON's estate at Monticello. The Rev. Dr. PIERSON, President of Cumberland College, Ky., has obtained from Capt. B. much information in regard to Mr. JEFFERSON not hitherto made public. This he has embodied in a book, entitled "Jefferson at Monticello."* It does not discuss political or religious opinions. Its purpose is simply to describe his home, his personal appearance, and his business habits—to set the man fully before the reader, as a farmer, manufacturer and master; as a lover of fine horses, hogs and sheep; as the enthusiastic cultivator of fruits and flowers; as the kind neighbor, the liberal benefactor of the poor, the participator of the childish sports of his grandchildren, the hospitable entertainer of swarms of visitors that well-nigh ate up his substance and consumed his life. The work is one of great interest and we are sure a few extracts will be acceptable to the readers of the *Genesee Farmer*.

Mr. JEFFERSON's farm comprised about ten thousand acres. It was divided into four plantations; "Negro Jim" having charge of the negroes on the Monticello portion. Capt. BACON says: "We used to get up a strife between the different overseers, to see which would make the largest crops, by giving premiums. The one that delivered the best crop of wheat to the hand, had an extra barrel of flour; the best crop of tobacco, a fine Sunday suit; the best lot of pork, an extra hundred and fifty

lbs. of bacon. Negro Jim always had the best pork, so that the other overseers said that it was no use to try any more, as he would get it any way."

Mr. JEFFERSON wrote out the minutest directions for his overseer, so that Mr. B. says: "I knew always exactly what to do." We extract a few:

"A part of this field is to be planted with Quarantine corn, which will be found in a tin canister in my closet. This corn is to be drilled 5 feet and the stalks 18 inches asunder in the drills. The rest of the ground is to be sowed in oats, and red clover sowed on the oats. All plowing is to be done horizontally, in the manner Mr. RANDOLPH does his."

"180 cords of wood are next to be cut." Minute directions are given where to cut it, on some flat lands, which were intended for a timothy meadow.

"When these things are done, the levelling of the garden is to be resumed."

"Davy and Abram may patch up the old garden pales, when work is going on from which they can best be spared."

"The thorn hedges are to be kept clean wed at all times."

"As soon as the aspen trees lose their leaves, take up one or two hundred of the young trees, not more than two or three feet high; tie them in bundles, with the roots well covered with straw." They were to be sent to Washington.

"When the work at the mill is done, and the fence mended up on the top of the mountain, take as much time with your hands as will fill all the gullies in the field north of the overseers home (called Belfield) with bushes, etc., so that they may be filling up by the time we are ready to clear it up. The scalded places should also be covered with bushes."

"The orchard below the garden must be entirely cultivated the next year; to wit, a part in Ravenscroft pea, which you will find in a canister in my closet; a part with Irish potatoes, and the rest with cow-pea, of which there is a patch at Mr. FREEMAN's, to save which, great attention must be paid, as they are the last in the neighborhood."

This was in 1807.

JEFFERSON was very fond of all kinds of good stock. "The first full-blood Merino sheep in all that country," says Capt. B., "were imported by Mr. JEFFERSON for himself and Mr. MADISON, while he was President. They were sent by water to Fredericksburg. Mr. JEFFERSON wrote me to go with Mr. MADISON's overseer, Mr. GRATES, and get

*JEFFERSON AT MONTICELLO. The Private Life of THOMAS JEFFERSON. From entirely new materials. With numerous facsimiles. By Rev. HAMILTON W. PIERSON, President of Columbia College, Ky. New York: CHARLES SCRIBNER. 1862.

the sheep. He said he knew no better way to divide them, than to draw for the choice; and the one that got the first choice of the bucks, take the choice of the ewes. When we got to Fredericksburgh we were greatly disappointed. The sheep were little bits of things, and GRAVES said he would not give his riding-whip for the whole lot. There were six of them—two bucks and four ewes."

Mr. BACON got the first choice, and so selected the best buck.

"He was a little fellow, but his wool was as fine almost as cotton. When I got home, I put a notice in the paper at Charlottesville, that persons who wished to improve their stock should send us two ewes, and we would keep them until the lambs were old enough to wean, and then give the owners the choice of the lambs, and they leave the other lambs and both of the ewes. We got the greatest lot of sheep—more than we wanted; two or three hundred, I think; and in a few years we had an immense flock. People came long distances to buy our full-blooded sheep. At first we sold them for \$50, but they soon fell to \$30 and \$20; and before I left Mr. JEFFERSON, Merino sheep were so numerous that they sold about as cheap as common ones."

Mr. JEFFERSON also imported some "Calcutta hogs." "They were black on the heads and rumps, and white listed round the body. They were very long bodied, with short legs; were easily kept; would live on grazing, and would scarcely ever root. They would not root much more than an ox. With common pasturage, they would weigh two hundred at a year old; and fed with corn, and well treated, they would weigh three or four hundred."

He told the people to bring their sows, "and when they came for them they might take two and leave one." In this way, he got a large number of hogs, and the stock was scattered over the whole country.

"But the horse was Mr. JEFFERSON's favorite. He generally worked mules on the plantation, but he would not ride or drive anything but a high-bred horse. Bay was his favorite color. When he travelled in his carriage, he always used five horses: four for the carriage, with postillions, and one for his servant who rode behind.

After he was President, crowds of visitors came to see him. Mr. BACON did not like it. He would kill a fine beeve, and it would be eaten up in a day or two. He would send a load of hay to the stable, and by the next morning there was not enough left to make a hen's nest. "I finally," says Mr. B.,

"told the servant who had charge of the stable to give the visitor's half allowance," but Mr. JEFFERSON found it out and countermanded the order.

Mr. BACON himself is quite a character. After he left Mr. JEFFERSON, he started for "the Missouri," which was then much talked of. He went on horseback in company with five others. He went by way of Louisville, Ky., which was then only a small settlement, and the people were anxious that he should settle there. When he crossed the river into Indiana, there was no road at all. Took a pilot and went to Vincennes. Had to swim the streams. Saw a good deal of game—gangs of deer, fowls, and wolves. At one house where he stayed all night, the wolves came about the house and howled so terribly that the dogs were afraid of them—would not go out and attack them. They took several pigs out of a pen, and they had to be driven off with fire-brands.

When he got to St. Louis, he found it "a dingy little settlement, not much larger than a negro quarter." He was offered 1,000 acres of land for \$3 per acre. He had the \$3,000 in a belt around him. Gov. CLARK urged him to buy. "If I had only taken his advice!" says he, "but at that time I would not have taken off my belt and paid out my money for all the land in the territory. You could raise abundance of everything, but could get nothing for it. There was no such thing as a steamboat on any Western river. When the people had a surplus of bacon, flour and venison, they would load up a flat-boat and take it to New Orleans. It took four or five months to make the trip, and they got very little for their load."

But the truth was, Capt. BACON was a widower and in his journey through Kentucky had seen a widow! He returned, settled in Kentucky, and married her, and now, in alluding to his failure to settle in St. Louis, he says; "The fact is, Sir, I believe I should have settled in St. Louis had it not been for the old lady here. The last night I was in St. Louis, I determined I would go back and marry her if possible, and settle here. We have not lived together nearly forty years, and I believe neither of us is tired of the union or anxious to secede."

BIRDS AND INSECTS. — A correspondent of the London Times of June 3d says: "Having had my fruit almost destroyed by insects, I laid all the blame on the sparrows; but on shooting one that was coming out of a fruit tree a green caterpillar dropped from its mouth, and on examining its contents I found no less than twenty green caterpillars and a great number of aphides."

LICE ON GRAIN.

EDS. GENESSEE FARMER:—We have just come in from cutting wheat. We find it very much injured by the fly and the late storms of rain and wind. There is another little insect we find on the grain. It does not appear to have injured the grain much; but they are on the grain by the hundreds and thousands. The first we noticed them was on the wheat last year. They did not seem to have injured it. I send you a head of rye with a few of them on the stem. Perhaps you can give us some account of them through the *Genesee Farmer*.

Dillsburg, Pa., July 10, 1862.

JOHN PHAIL.

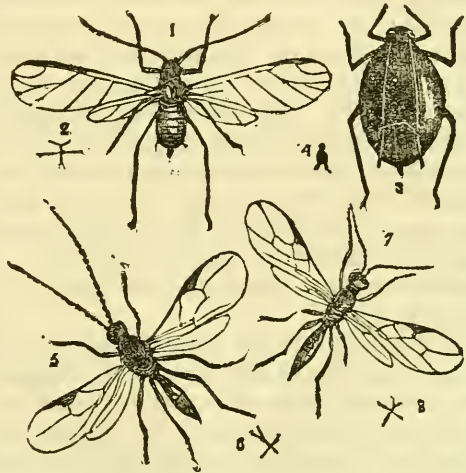
The insect you send is the "oat aphid" (*aphis avenae*) of FABRICIUS. It has been known in Europe from time immemorial. It has occasionally appeared in this country, but till last season has done comparatively little damage. Last year, however, it made its appearance in different parts of the country in countless myriads. It attacks all kinds of grain: rye, wheat, barley and oats; commencing with the former, and when the rye gets ripe and too hard for them to suck its juices, it attacks the more succulent wheat and barley, and finally leaves these for the oats, which are still green.

As it attacks all kinds of grain, it is now more properly called the "grain aphid" (*aphis cerealis*). We have not heard many complaints of them this season. We were in hopes that the numerous parasites which preyed upon them last year had kept them in check. JAMES O. SHELDON, Esq., of Geneva, N. Y., writes us under date July 11, that it has made its appearance again on the oats in his neighborhood.

DR. FITCH states that one aphid will in twenty days have upward of two million descendants! Were it not for the numerous parasites which destroy them, they would soon overrun our grain crops. Fortunately it has many parasitic foes, such as the lady-bug, the Chrysopa or golden-eyed fly, the larvæ of different Syrphus flies, etc.

If you examine a head of wheat invested with these lice, you will find some that are large, plump and swollen, of the color of brown paper, standing in a position so natural that you suppose they are alive. Touch them with the point of a pin, and you find them dead. Pick off a part of their little skin, and you will find inside a white maggot doubled up like a ball. If you put one or two heads of this wheat into a vial, closing its mouth with a wad of cotton, you will find, according to DR. FITCH, in a week or less, some little black flies, like small ants, running about in the vial. They come out from the dead lice. Drive one or two of these flies into another vial, and introduce

to them a wheat head having some fresh lice. You will soon see the fly running about among them, examining them with its antennæ. Having found one adapted to its wants, it dextrously curves its body forward under its breast, bringing the tip before its face, as if to take accurate aim with its sting. The aphid gives a shrug, indicating that the fly has pricked it with his sting and that by this operation an egg has been lodged under its skin, from which will grow a maggot like that first seen inside the dead, swollen aphid. And thus the little fly runs busily around among the lice on the wheat heads, stinging one after another, till it exhausts its stock of eggs, a hundred, probably, or more, thus insuring the death of that number of lice. And of its progeny, fifty we may suppose will be females, by which five thousand more will be destroyed. We thus see what efficient agents these parasites are in subduing the insects on which they prey.



GRAIN APHIS.

We annex a cut of one of the male aphides magnified (fig. 1—2, natural size). Also of one of the females when punctured and dead (fig. 4, natural size, fig. 3, magnified).

Figs. 5 and 7 are parasitic flies which sting and destroy these insects, *Aphidius avenae* and *Ephedrus plagiator*, as given in "Morton's (English) Cyclopedia of Agriculture." Figs. 6 and 8, natural size.

INFLUENCE OF THE MOON ON VEGETATION.—The Boston *Cultivator* alludes to the investigations of DR. BOHL in regard to the influence of the moon on vegetation. He found that plants exposed to the moon's rays were not only more vigorous than those partially shaded, but blossomed two or three weeks earlier.

REFUSE PULP FROM CIDER MILLS AS A FERTILIZER FOR APPLE TREES.

M. FREERE HENRY, of Rennes, in an article communicated to the *Abeille Pomologique*, mentions the following interesting facts :

For fifteen years he remarked that apple trees, the lower part of whose stems was covered with cider pressings, spreading out from a large adjoining heap of that material, made double and treble the growth of trees that were not so circumstanced.

More recently, between old and extremely exhausted willow stools, there was spread about nine inches thick of old marc, or cider pressings. In the same year of the application this produced an extraordinary effect. Those Willow stools, which for many years had produced only weak twigs, scarcely worth the expense of cutting, pushed with great vigor, and have since continued to do so. In consequence of these observations, he determined on turning to account, as manure for fruit trees, an enormous heap of marc which blocked up the way. He asked the opinion of some fruit growers ; but they said the marc would burn the roots. However, in the beginning of February, observing that the pips were beginning to germinate all over the surface of the heap, he concluded that if the radicals of the embryo were not burned, it was not likely the older roots would be injured, and did not hesitate to apply the manure to four hundred apple and pear trees, in the following manner :

In February, 1859, he removed the soil from around trees, trained as pyramids and as vases, to the distance of a radius of twenty-one inches, and as deep as the principal upper roots. He then put to each tree three or four forkfuls of marc, pressing it down with the foot, and covering it slightly with a portion of the removed soil, the remainder of which was spread on the borders. As marc is very retentive of moisture, and at the same time a good conductor of heat, which was excessive in 1859, numerous roots were speedily formed in its slowly decomposing substance. "Even this year," says Mr. HENRY, "although rather colder than usual, the effects of the impulse given as above to vegetation is remarkably apparent. The stems of the fruit trees have become clear of Linchens and Moss ; and latent buds, from the abundant flow of sap, were readily developed on making an incision where branches were wanted to be called into existence. Bad growers, such as the Monillebonche and Bezi de Caissoy Pears, were thus made to present a regular vegetation.

"But a fact to which I would wish more par-

ticularly to draw attention is, that some delicate varieties of which the fruit is apt to crack, for example, the Beurre d'Arenberg, or Glou Morceau, Doyenne Roux, Beurre Gris, &c., now produce fruit perfectly smooth and sound.

"In conclusion, I am justified, by my own experience, in saying that I can confidently recommend the use of the marc of apples as a manure for fruit trees, and thus turn to good account a substance which many allow to go to waste, not even taking the trouble to mix it with the dung in the manure heaps.

"Before using the marc it would probably be advisable to throw it up in a large heap, so as to induce fermentation in order to disengage certain acid or other principles ; and then apply it to the trees when the germination of the pips takes place, that is, in the month of February. Fruit trees in gardens, and doubtless also those in fields, treated as above detailed, would repay the labor a hundred-fold."

UTILITY OF SMALL BIRDS.

"I HAVE taken the liberty to send you in a little box what may amuse you. Here there have been, on the part of the farmers and cottagers, great complaints made of the mischief done by small birds to corn fields and gardens. In vain did some hold the argument that these small robbers did as much good in destroying grubs and caterpillars as harm to wheat and black currants. For the last two years the township has not only paid for all dead sparrows, but so much a dozen for all birds' eggs. I am afraid to say how many thousand dozen of eggs were taken and paid for, and, as I believe, mainly in consequence of this (aided, perhaps, by the mild winter), we have this year such a plague of caterpillars and grubs as I never remember. Since I last wrote to you, I have had three women constantly employed picking over gooseberry, apple and currant trees, and our destruction of caterpillars has been by bushels. I felt so convinced that this plague was partly owing to the last two years' destruction of birds, that on my own grounds and in all the coverts I ordered the nests not to be molested. I now enclose you the head of a sparrow I shot this morning in my garden. This was done to test what food it had taken to its nest. I hope the head may reach you in the same state in which it was picked up, viz. with three green caterpillars and three daddy-long-legs in its beak. If one journey from its nest could collect so many, it is easy to guess how many may be done by them to clear trees. My trees fr-

hand-picking are now pretty clear; but I am quite sure it would have been done cheaper and better by the birds had they been left alone. I cannot think I am sending you much information, but one fact is better than many theories.—AN IGNORAMUS, near Liverpool.

[We give this communication the most prominent position in our pages, because it relates to a subject of far more importance than it is usually believed to possess. The warfare carried on against small birds is a proceeding founded on the most self-injuring ignorance that at present overshadows our farmers and gardeners. A similar warfare has been carried on in France, and the same result has occurred there which our correspondent records as now scourging the vicinity of Liverpool—namely, a plague of caterpillars and grubs. So serious has the plague become in France that the Government has interfered and a strong arm is outstretched to save the small birds from destruction. We almost regret a similar power cannot be similarly exercised on this side of the channel. We have warned our readers again and again that these birds are far more powerful benefactors than they are injurers by being thieves of seeds and fruits. They can be scared from these at a small expense, even if old women are paid to act as scarers; whereas, if the birds are destroyed, no outlay, however large, can rescue our crops from insect mauraders. The destroyer of small birds is one of the most unmistakable illustrations of the old saying, "He is penny wise and pound foolish." It is preventing a small loss, and insuring the occurrence of a far greater. Nor are the services of small birds restricted to the destruction of insects, for they are great consumers of the seeds of weeds. As an evidence how far in advance of us in a knowledge of these facts are our descendants on the other side of the globe, we have a letter before us detailing the successful importation into Australia of goldfinches, hedge-sparrows, and other small birds. They were bought in this country, and sent by steamer to Sydney, for the express purpose of consuming the thistle seeds. We recorded some time since how a Scotchman had sown some seeds of his national emblem in Australia, and that it was overwhelming the land. The public authorities have paid large sums to children for gathering the seed-heads of the thistles; but though this has brought in a vast tribute of heads, yet the thistles are unconquered; so the Australian authorities have allied themselves, like wise men, with the small birds. The head of the sparrow sent to us by our correspondent is now upon our table, with the green caterpillars and daddy-long-

legs, parents of root-injuring grubs, in his mouth, and we wish every farmer and every gardener could see it, for it is a striking though silent rebuke to them all.]—*Journal of Horticulture, London.*

CHEAP CISTERNS.

In all soils where a hole may be dug, without the earth caving in at the sides, cisterns may be cheaply made in the following manner:

A cistern required to be ten feet in diameter, should have a hole, for the first eighteen inches of its depth, twelve feet in diameter, and beyond this, ten feet, thus leaving a curb of earth of one foot surrounding the cistern. When the hole is excavated, the bottom and sides should be coated with a magma made of Rosendale Cement and water, of about the thickness of cream; this may be put on with a whitewash brush; the watery portions will sink into the soil, leaving a coating of cement on the surface; to this we may apply, with a trowel, to the thickness of one or two inches, a mortar made of one part Rosendale cement, and two parts of sand; the sand should be cleaned free from lime and well washed before its use. This mortar may be of such consistency as to be readily applied and smoothed with an ordinary ceiling trowel, and should evenly cover the sides and bottom. When a pump is intended to be introduced, one large flat stone should be placed on the bottom, on which the pump may rest. And if set at eighteen inches below, the surface should be covered with a tier of brick, well laid in the same cement which forms the cistern. On this may rest a frame or flooring, or a brick arch may be sprung upon it.

Rosendale cement is now sold in a finished state, at \$1.12 a bushel, and the expense of building a cistern in the way we have named is much less than by any other method. When once set and hard, its circular form defies the outward pressure of the soil. We have known such cisterns to last for a greater number of years than the best wooden cistern.

In soils which are so sandy as not to permit the entire cistern to be dug at one time without a shelter, build a cistern loosely of wood, place it on the surface of the ground, without a bottom, and with only a rim surrounding its lower edge, and loaded with stone; then dig out the soil from the inside, passing it over the top, and permitting the cistern to settle until at the proper depth; then pour in a grouting between this wooden cylinder and the outer soil, of Rosendale Cement, mixed very thin with water. This will fill up the interstices, and will help to give strength to the cistern, and if the soil should not lean against the cistern, but permit the magma to settle with the soil, this outer coating will form a perfect cement coating. The bottom may then be cemented with one part Rosendale Cement, mixed with two parts of sand in the manner recommended above.—*Working Farmer.*

The *Germantown Telegraph* remarks:—Those who desire a cheap cistern, we do not question that the foregoing will suit them; but we could never see the value of dug-out cisterns compared to those above ground. A dug cistern, however cheap it may be, will require a pump, or some other contri-

vance less convenient and more laborious, to raise the water. This will be an additional expense. But a cistern or tank above ground, built of wood, say eight or ten feet high and six feet square, which will hold, at a rough guess, over two thousand gallons—well lined with lead, the roof tinned and painted, with a trap door large enough to admit a man—would doubtless be more expensive, but it would be sure to hold water, would last at least a quarter of a century, and from it the water could be conveyed by pipes into the kitchen, and if the tank be elevated enough, into the chambers. In any event, there would be no expense or labor in getting the water.

We have had such a tank in use for fifteen years, and it has never cost us a dollar for repairs, nor has it ever leaked a drop.

PURE AIR FOR MILK ROOMS.

We know of nothing so sensitive to bad odors as cream. It will absorb the gases given off from any fermenting or decaying substance with great rapidity. Every good dairyman knows how essential is the most scrupulous cleanliness to success. But it is not enough to keep the dairy and the vessels clean and sweet. *The air must be pure.* Stagnant water outside, or any decaying matter, will to a certainty taint the cream and spoil the butter.

We once visited a great barn in Massachusetts, erected at a cost of *tens of thousands* of dollars and designed by a scientific gentleman of some reputation. Everything connected with it was on a scale of magnificence rarely witnessed. The dairy was *elegant*. The vessels for the reception of the milk were cut in solid blocks of beautiful marble. It was on the lower floor of the building, and there was an ice house at one end. Nothing pleasanter, nothing more beautiful. But alas, at the other end of the dairy room there was—a manure cellar! So that every time the door of the dairy was opened the warm air would rush into the cool dairy, and the consequence was that the wealthy owner of the great barn and marble dairy, purchased his butter from the less elegant but sweeter dairies of his neighbors.

The editor of the *Country Gentleman* has recently visited some farms in Pennsylvania, and furnishes another striking instance of the necessity of pure air for the dairy. He says:

"The spring-house, although intended only for a dairy furnishing a home supply, was twenty feet square, and as clean as pure cold water, granite rock, and a hard-burnt brick floor could make it. A spring large enough to fill a two-inch augur hole boiled up in a sort of artificial rocky cavern, and flowing out, spread over the floor to a depth of about two and a half inches. Walks of handsomely dressed flagging above the water, gave ready access to the pans standing in the crystal water. A striking proof of the absolute necessity of pure

air, as well as other requisites of cleanliness, for success in butter making, was afforded by the accidental deposit of a pile of manure some rods distant, the fumes of which were occasionally wafted by the wind towards the spring-house. For a week, all the butter made was quite poor in quality; when the cause was discovered and removed, the butter was restored to its original excellence."

THE CEREALS AT THE GREAT INTERNATIONAL EXHIBITION.

Lord PORTMAN, President of the Royal Agricultural Society of England, in a recent speech made the following remarks in regard to the grain show at the Great Exhibition:

"It has been my duty to serve as one of the jurors in the present International Exhibition, and in the course of that duty I have had to form an opinion on the agricultural products of the world. First, we had to begin with the British exhibitors, and I must say to my sorrow that I have no doubt the jury will report that the cereal and leguminous specimens sent to the International Show by the British producers are neither well shown nor good in quality. I ask why is that? It is because, not only in this Society but in the Royal Society likewise, we have for so many years devoted our attention so completely to the breed of animals and the improvement of implements, that we have neglected the cereals, not on our farms but for exhibition; and I fully believe that when the farmers come to the International Exhibition and see how badly the British farmers show themselves, and how remarkably all other countries show themselves, in this respect, they will think that we in our several districts and societies ought to resume or re-establish prizes for cereal exhibitions as well as for stock and implements.

"Let me tell you that the finest exhibition of oats is from Nova Scotia, and the finest sample of wheat is from Australia, weighing 68 lbs. 7 or 8 ounces to the bushel, admirably exhibited and well prepared for the miller. The best flour exhibited, in spite of the French notion that D'Arby flour is the best in the world, comes from Australia. It is well manufactured from the most beautiful wheat. I say then go to Nova Scotia and get a good cargo of oats for seed. It is, however, I admit, of little use to go for our wheat to Australia, because so much of the excellence of its production depends on the climate of that country. I do not think we could get such wheat in this country. The Australians took their seed from us, and by the aid of their climate have produced this most excellent wheat.

"The Zollverein is another part of the exhibition which will be interesting to farmers. The Zollverein includes various parts of Germany, and the exhibition of grain in that department is very good. The exhibition from Hungary in the Austrian department is also remarkably good. I noticed some most beautiful specimens of beans and peas from Brazil, probably better than the whole world could show. Thirty gradations of these productions are shown. The Brazilians have given me a few specimens as seed. I have sown them in my garden, and I hope I shall be able to tell you of the result at our next annual meeting."

SPIRIT OF THE AGRICULTURAL PRESS.

CLOVER HAY FOR COWS.—The *N. E. Farmer* states that Mr. JOHN DAY, of Boxford, Mass., who cuts large quantities of clover, feeds it out principally to his milch cows, and he finds that when the clover is exhausted and he feeds timothy and red-top, "twenty cows immediately shrink two cans of milk per day!"

AGRICULTURE IN THE WEST IMPROVING.—The *Prairie Farmer* says the farmers in the West are now generally in better condition than for years past; fewer debts are pressing upon them, and they evince a determination to confine their operations to fewer acres, and adopt a more systematic and better mode of farming.

ASPARAGUS BEETLE.—The *Horticulturist* says the Asparagus beetle which appeared on Long Island about six years ago has worked its way up as far as Astoria, nearly or quite destroying the asparagus plant in its progress. It is very destructive to the plant, eating it in all stages of its transformation. We have seen many fine beds utterly ruined, and in more than one locality the culture of asparagus has been abandoned.

MILK AND BUTTER FROM AYRSHIRE COWS.—The *Boston Cultivator* states that H. H. PETERS, of Southborough, Mass., weighed the milk from his dairy of nineteen Ayrshire cows, from June 15th to 25th—ten days. They gave an average of 32 lbs. each per day. The milk from eighteen being set for one day, gave 20 lbs. of butter. One cow gave 58 lbs. of milk in a day. Her milk for three days gave 6 lbs. of butter, or 2 lbs. per day. This cow had two quarts of corn and cob meal per day. The rest had nothing but pasture feed.

TOP-DRESSING MEADOWS IN SUMMER.—The *Illinois Farmer* recommends farmers in that section to top-dress their meadows immediately after the hay is removed. This keeps the hot sun from injuring the roots of the timothy grass, and increases the growth of the aftermath. The crop of grass is better the next season, than if the manure is put on in April. In fact, the editor says, "it is more than double the value of that put on in April with us." He does not know how it would be at the East. What say the readers of the *Genesee Farmer*?

SPRING WHEAT IN MAINE.—The editor of the *Maine Farmer* has been examining the returns from the County Agricultural Societies in that State, and finds that the average "premium" crops of spring wheat, reported for several counties, was

34 bushels per acre. This, he well observes, shows what could be done in Maine in the way of raising spring wheat, when the seasons are favorable for the growth of the crop and the destruction of the midge. More wheat has been sown this spring than last year, but the weather has been too dry for it.

TURNIP FLY.—The *Canadian Agriculturist* says Mr. E. G. O'BRIEN, of Shanty Bay, has for several years used the following prescription to prevent the ravages of the turnip fly, and on each occasion the plants have escaped injury: Oil of turpentine, one teaspoonful to each pound of seed, stirred till the oil is absorbed. The seed should be sown immediately. After the seed has been so treated, it will have a shining, glistening appearance. It is the oil, not the spirits, of turpentine that is used. The editor of the *Agriculturist* has on several occasions used fish oil in the same way with favorable results.

POULTRY.—The commander of the galley "Ganymede" said, "If it were a calm, the good ship was in a perfect safety; if it blew hard, she sailed the faster. If the night were light, a collision was almost impossible; and if it were dark, pirates could not see them." And so, in a like happy strain, the *London Poultry Chronicle*, in an article urging the more extensive raising of poultry, remarks: "If the weather is cold, dead poultry will keep; if it is hot, live poultry will grow. If the sun is scorching, fowls will bask and enjoy it. If the weather is wet and muggy, the earth will teem with animal life for chickens."

MANURING FOR WHEAT.—GEO. GEDDES, of Onondaga county, remarks in an article written for the *Country Gentleman*, that in his section "manure should be applied on or near the surface. Ground intended for wheat, after the last plowing, when the furrows are as rough as the plow has left them, is just in the condition to receive the manure that has been reduced in bulk and mixed by the processes practiced here. The harrow will mingle it with the soil, and perhaps slightly cover most of it, if it is drawn across the furrows. Then roll the land, and drill the wheat, and leave the surface untouched behind the drill. If anything will insure a crop of wheat here, this is the way to do it."

WORTH OF POULTRY IN BRITAIN 1,000 YEARS AGO.—Under this heading, the *London Poultry Chronicle* gives the following quotation from the "Ancient Laws of Wales:

"The worth of a goose one legal penny; of a gander two legal pennies. The worth of a brood

goose is as much as the worth of her nest, and there ought to be in her nest twenty-four goslings. [Broods have degenerated since then!] The worth of each gosling is a halfpenny, or a sheaf of barley until it lays, and after it lays each one is a legal penny in value: thus a brood goose is twelpence in value.

"A hen is one penny in value, and a cock is two hens in value. Every chicken is a sheaf of oats or a farthing in value, until it shall roost; after that a halfpenny until it shall lay or shall crow."

CANADIAN TIMBER AT THE GREAT EXHIBITION.

THE *Gardeners' Chronicle* alludes as follows to some of the specimens of Canadian timber shown at the Great International Exhibition:

The visitor to the International Exhibition who shall seek for Timber, will see on his right in the distance, as soon as he enters the Eastern Dome, a noble pile reaching nearly to the roof of the transept. When he approaches the pile, he will find that its base is surrounded by most admirable examples of what Canada can produce; for he is within our Great North East American colony, the pride of England, the envy of the United States. There is not such another display from the New World; and when we consider how near is Canada to our own shores, the rapidity of intercommunication between us, and the enormous wealth which this "trophy" represents, it is difficult to avoid feelings of something like triumph at such a demonstration of British power.

To planters in this country the exhibition of timber in Canada is particularly interesting, because not a tree is represented in it with which we are unfamiliar. We can grow them all on our own estates if we think it worth while; and, given time enough, we can grow them as well. More especially does it concern those who already possess old specimens of Canadian trees to study here the evidence of what they may come to. Take for example black walnut, which grows magnificently even near London. There is one specimen (No. 53) which is 4 feet 7 inches in diameter, exclusive of its bark. Such timber can be had in Quebec for £71 (\$355) per 1000 feet cube. The specimen to which we now refer must be about 400 years old.

North American elms thrive perfectly with us. They are, however, we believe, exclusively *Ulmus Americana* and *fulva* that have been introduced. We now see that another kind, called the Rock elm, or *Ulmus racemosa*, is superior to them and to our own; the wood being finer in the grain and less brittle. Of this there is a specimen about 2 feet eight inches in diameter.

Weymouth pines are among the commonest of our hardy Conifers. They yield the "pinewood" of carpenters. Little however do our foresters know of the huge specimens that swarm in Canada. "Average height, 140 to 160 feet; average diameter, 3 to 4 feet; but common near Lake Erie 5 to 6 feet in diameter and 200 feet high; or even in some cases 22 feet in circumference, 220 feet high, bare of branches for 120 feet to the first limb." Such monsters are, however, too big to exhibit, and Canada modestly limits herself to about 2 feet 10 inches, or 3 feet in diameter.

Then there is *Pinus resinosa*, or the Red pine, which dislikes our eastern climate, 3 feet 6 inches in diameter, which is about twice its usual size. But there is no encouragement to plant it here.

The ash of Canada (*Fraxinus Americana*), famous for its toughness and strength, invaluable for handles of axes and other implements, is displayed in its small forms as well as in the giant proportions that it assumes when full grown. One round, with 305 circles of annual growth, is 2 feet 10 inches in diameter, an admirable example of timber.

There is oak, too, black (*Quercus tinctoria*), red (*Q. rubra*), and white (*Q. alba*), the latter little inferior to British heart of oak, and not far off 4 feet in diameter. This tree, as much at home with us as with Canadians, is said to be sometimes 21 feet round! in Western Canada.

Then we have Occidental plane, or button wood, 4 feet through; tulip tree, or white wood, 3½ feet, and basswood or American lime, more than 2 feet, all excellent for cabinet and joiners' work, though unfit to bear exposure to weather.

Add to these the numerous specimens of the fair growth of American chestnut, hickories, maples, beech, birch, hornbeam, hemlock, spruce, tamarac or American larch, and he who would thoroughly understand the nature of Canadian timber has a field of serious study hitherto unexampled: how serious, in a mercantile point of view, may be gathered from the fact that "Canada exports annually about 30,000,000 cubic feet of timber in the rough state, and about 400,000,000 feet, board measure, of sawn timber. The revenue derived by the Province, during 1860, for timber cut in the forests, amounted to about \$500,000." It appears that of the 60 or 70 varieties of woods in its forests, there are usually only five or six kinds which go to make up these exports so vast in quantity; the remaining fifty or sixty timber trees are left to perish or are burned as a nuisance, to get them out of the way.

THE ENGLISH COLONIES AT THE GREAT EXHIBITION.

THE London *Agricultural Gazette*, in its account of the International Exhibition, speaks as follows of the products of "colonial agriculture":

Corn and wine, "milk and honey," cotton, wool, and flax and timber—colonial agriculture is a much larger subject than that of Britain only. "Here are lands and seas, spice lands, corn lands, timber lands, overarched by zodiacs and stars—clasped by many sounding seas—wide spaces of the Maker's Building fit for the cradle yet of mighty nations and their sciences and heroisms. Fertile continents still inhabited by wild beasts are mines into which all the distressed populations of Europe might pour themselves and make at once an old world and a new world human." This magnificent description of her colonies, which Carlisle put into the mouth of the mother country some ten or twelve years ago, is already becoming superannuated. The mighty nations have since that time actually grown into being—estimated only by population and still more by industry and its fruits, Canada and the Australian colonies may be already so described. These fruits are shown in great pro-

tion and in all their wonderful excellence in the North-east Transept. Gold, and wool, and grain, and cotton, and wine from Australia; timber, grain, furs, minerals, and agricultural machinery from Canada.

The catalogues of the New South Wales and Canadian collections are worthy of all praise; the former especially giving an admirable account of the wealth, condition and resources of the colony. We learn from it that New South Wales has a population of 350,860, of whom 15.39 per cent. are agricultural. The live stock in the colony at the end of 1860 is stated along with that of the other Australian colonies in the following table:

"In 1796 the whole of the live stock in the colony, exclusive of goats and pigs, was 57 horses, 227 cattle, and 1,531 sheep; and from this stock have sprung the vast flocks and herds which were feeding on the natural grasses of Australia at the end of 1860, as exhibited in the following table:

Colony.	Sheep.	Cattle.	Horses.
New South Wales.....	6,119,463	2,408,586	251,497
Victoria.....	5,794,127	653,534	69,288
Queensland.....	3,449,850	492,590	23,504
South Australia.....	2,824,811	278,265	49,399
Tasmania.....	1,700,930	83,366	21,034
General Totals.....	19,888,851	3,886,641	314,722

"The returns of agriculture, taken on March 31, 1861, give a total extent of land under cultivation of 269,798 acres. Of this quantity not quite one-half (128,829 acres) was sown with wheat; nearly one-fifth with maize, or Indian corn; another fifth with barley, oats, and artificial grasses for hay and green food for horses and cattle; and the remainder was appropriated to potatoes, vineyards and orchards.

"The average production of wheat is a little over 5 bushels per acre.

"Maize is grown largely as food for horses, pigs, and poultry. New South Wales and Queensland are the only two Australian colonies which are adapted by climate to the production of this valuable cereal. The average production is rather over 10 bushels per acre.

"Much attention has of late years been bestowed on the cultivation of the vine, and the manufacture of wine."

Of all these commodities samples are shown in the New South Wales collection. Remarkably fine samples of maize in cob are shown by twelve exhibitors. Wheat is shown by eight exhibitors; a very fine sample by Mr. S. S. CLEMENTS, of Bathurst, and three samples shown by Messrs. MACARTHUR of the harvest of 1861, may be selected from among the others. The wheat is of two kinds, one large grained, the other extremely small. Among Messrs. MACARTHUR's samples is one very large and fine grain, which weighed in the colony 68 lbs. per bushel.

Cotton and wine are also shown by New South Wales, and especially by Queensland, lying to the north of it. As, however, the samples in the New South Wales collection are, we believe, excelled in quality by those from the hotter climate, so her grain is beaten by that shown from Victoria in the colder climate to the south of it. Queensland, on the other hand, shows samples of a rather coarse red wheat. A large case of wheats, barleys and

oats has just been erected in the Victoria collection, on which agricultural visitors will look with astonishment. Among the samples of wheat is one numbered 26, which weighed no less than 69 lbs. 4 oz. in the colony, and which now weighs 68½ lbs. It is a large translucent grain. There are, however, samples of a very fine cream-colored, small-berried wheat almost rivalling this weight. A sample of barley grown by Mr. GRANT weighs 58 lbs. 5 oz. per bushel. The oats, too, are remarkably fine. A long Tartarian oat weighs no less than 49 lbs. 4 oz. per bushel—a weight which, rarely reached by any variety, is, we should imagine, altogether unparalleled in the case of Tartarian oats.

The South Australian colony is also very rich in samples of grain; there is, for instance, a sample of the harvest of 1862, cut in January of this year, which weighed in the colony 68 lbs. 1 oz. per bushel, and 10 or 12 other bushel samples of grain, varying from 64 to 67 lbs.

The West Australian colony exhibits wheats and maize, and especially a fine collection of woods, but it is for its wools and its alpaca that it is more especially remarkable. The wools from all the Australian colonies are, after all, the representatives of their greatest agricultural wealth. Both here and among the grains the English farmer looks on specimens representing quality which his climate forbids his ever hoping to rival.

NOTES FROM CANADA WEST.

EDS. GENESSEE FARMER:—Your readers need not wait for me to tell them that the year 1862 has been, hitherto, a peculiar season, made up of extremes. The winter brought us a greater amount of snow, and of longer duration, than we have ever seen, and when the snow left, without any great amount of rain, the land continued so wet that we could not commence plowing operations until late; then, before half our crops were sown, the land "sealed" and became as hard as a road, and it would have paid about as well to have sowed the seed by the "wayside," and allow the "fowls of the air to devour it," for there is very little prospect, in many instances, of "reaping where they have sown."

With us the drought commenced with the month of May, and till the middle of June, I believe, was general throughout Canada. Since then occasional showers, in greater or less quantities, have fallen in almost every locality. In this neighborhood we have not had a shower that penetrated the mellowest soil an inch deep, or benefitted the crops more than a heavy dew, while only five or six miles away, in every direction, they have been favored by copious rains. To sum up our prospects, in as few words as possible, according to present appearances, I would say that the hay crop is past redemption. Many farmers have been compelled to stock nearly all their meadows to prevent starvation, and the majority of that which has been left is scarcely worth cutting—say 500 pounds per acre. Fall wheat looks well where there is any to look at; but we have to travel a long way to find a field. Spring wheat cannot possibly be more than half a crop. Barley was frozen badly, and cannot be good. Roots will, I fear, be a total failure. The carrots never came up; and the few

turnips that came through were at once pounced on by the flea, and badly damaged. Many have sown over again with the same results. The whole stock of Hungarian grass seed has been purchased up greedily by farmers, and deposited in the soil with the hope of supplying a deficiency in the hay crop. Fruit promised exceedingly, but the frost and drought have left but comparatively few apples, and those will be small unless we have a rain soon. Strawberries have been pretty plenty; currants, gooseberries and raspberries will be plenty.

The foregoing was written last evening, and to-day we have been favored with two or three showers of half an hour each, which will greatly assist in bringing up turnips lately sown, and forward late crops also, which seem to be suffering the most; will revive the pastures and cover the ribs of our half starved cows, etc. R. W. S.

East Zorra, C. W., July 15th, 1862.

HOW TO MAKE A GOOD FARM ROLLER.

EDS. GENESEE FARMER:—B., Cooperstown, Pa., in the June No. inquires how to make a good farm roller. I will answer his query to the best of my ability.

Go into the woods and cut a stick of sound red or white oak timber, that will square from twenty inches to two feet when hewn. Saw the log off eight feet long, then round the angles and plane the roller smoothly. Having thus prepared the body of the roller, attention should next be directed to preparing the sockets. It is done as follows: Bore about eight inches deep into the centre of each end of the roller, and drive securely into each of these holes a wrought iron socket.

A frame may be constructed very simply, by morticing three cross-ties into two stout end pieces. Next provide two stout iron pins, about eight inches long in the clear from the shoulder, and one and one-half inches in diameter. Push these pins into the sockets prepared for them; their outer ends should be made with shoulders, screws and nuts—by this means they are made fast to the end pieces of the frame, and become the *fixed axle* on which the roller revolves. Lastly, drive on the end pieces of the frame, fasten the tenons, tighten the nuts, and fix on a tongue. For additional strength, brace the corners of the frame and brace the tongue. If the roller is to be used *exclusively* in the corn field, or for rolling plowed ground, it will facilitate the process of turning if the roller is cut into two sections, because one section will roll forward while the other turns back; hence the tongue and frame will be relieved of a great strain. These rollers are unsuitable for meadows, because they leave a little sharp ridge between where the sections roll.

Some farmers prefer the "drum-head" roller. They are hollow, made upon nearly the same principle, but require more mechanical ingenuity and skill in their construction.

The roller first described is easy to construct, and within the scope of any ordinary mechanic. If properly constructed, it is cheap, durable, strong, and I earnestly think and hope it will prove satisfactory to B. and other readers of your valuable paper.

CUTTING PEAS.—Try a Buckeye Mower. That

machine succeeds in cutting "down" and "matted" clover. Why not cut peas with it, where they are not brushed?

HAL.

TOP DRESSING MEADOWS—SOWING WHEAT.—As one of the numerous readers of your invaluable *Genesee Farmer*, I wish to inquire whether it would be as well to top dress with well decomposed compost manure a Timothy meadow soon after cutting the grass, and let the second growth of grass remain upon the land as an additional fertilizer, instead of feeding it down. If not, what better plan would you advise.

I have also thought of sowing winter wheat upon the sward of a meadow turned over the 1st of August, or soon after removing the crop of hay, by cultivating upon the sod after being turned over with gang plows or cultivator; not tearing up the sod, however, and then manure top of the sod with coarse manure, or mulch with straw. Will you please add your experience, or advise with reference to this in your next number, and oblige—A VERDANT AGRICULTURIST.

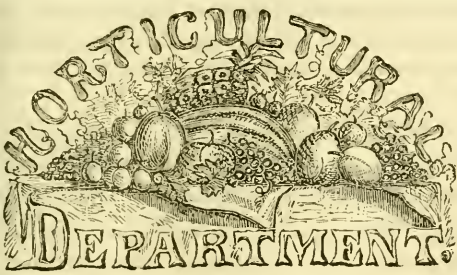
The top dressing would undoubtedly improve the timothy meadow.

We have known a fair crop of wheat obtained by turning under an old sod and cultivating in the way you propose. In regard to the application of coarse manure or straw to the surface we have had no experience.—EDS.

BARLEY BORN OF OATS.—A MR. EKINS, of England, claims to have some barley which was "born of oats"! In this country, there are many who profess to be able to turn wheat into chess; and hitherto they have enjoyed a monopoly of the business! They must now, however, look to their laurels. To change oats into barley is more *useful* than to turn wheat into chess. Dr. LINDLEY, to whom the barley has been sent, is incredulous. He admits that the barley sent him is unmistakably barley; but has the effrontery to ask for "proof" that it ever was anything else!

There is one thing still open to those enterprising men who understand this process of transmutation: they should tell us how to change *chess* into WHEAT. This would be even more useful than to change oats into barley, and the discoverers would be entitled to the thanks of the agricultural world!

POTATO BELLS.—A correspondent of the London *Mark Lane Express* says that of late years the potato fields have been increasingly gay with the purple blossoms of the potato, while in the autumn the stalks lie prostrated with the heavy berries full of seed. These seed balls are unnecessary and rob the tubers. He thinks if the flowers were cut off the plants would be stronger, and if persevered in for a few years, the plant might regain its former healthy condition.



TALKS AND TALKS IN THE GARDEN.—No. IV.

"COME and eat some raspberries. It will be a rarity. They are very fine and never more abundant."

"*Can't you sell them?*"

"No, you can hardly give them away. I asked grocer yesterday what they were worth, and he replied shortly, 'Worth nothing.'"

"The 'black-caps' sell best. They are not so fit, and can be taken to market in better condition than the red-raspberries."

"Look at these Brinckle's orange. Nothing can be handsomer, and the canes bend almost to the ground under their load of berries. The Red-antwerps are also magnificent, and so are the Justfolfs."

"The young suckers that I set out last month all new and are doing well."

"There are still too many young suckers left. It is well to thin them out now to four canes, leaving, of course, the strongest. In this way you get good strong canes for bearing next year."

"Strawberries will do very well, set out in August, if the young plants are strong and the weather rainy. If not, it is better to wait till next spring. The advantage of setting out in August is that the plants will bear the following year, while those set out next spring will not. You thus gain a year."

"I am going to set out a lot on this plat where we have had early peas. The land was trenched last year, and is in splendid condition. Strawberries like a deep, rich, loamy soil. It is very important to have the subsoil broken up, and manure worked into it. That is to say, in trenching, throw some manure into the bottom of the trench, and work it into the subsoil. The roots will then descend down into this rich soil, and the plants will not be likely to suffer much from drouth. The finest berries I ever saw were raised on land prepared in this way. They were Hooker's Seedling."

"By the way, the Hooker has done better this year than for the past two or three seasons. It is

a splendid berry, large, handsome, and productive, and where it does not winter-kill has no superior."

"Downing's plan of cultivating in alternate strips, was to set out the plants in rows three feet apart and a foot apart in the rows. He allowed the runners to take possession of every alternate strip of three feet, the other strip being kept bare by continually cutting off all runners upon it. This bare strip of three feet served as an alley from which to gather the fruit. After the crop is over, dig up this alley and prepare it for the occupancy of the new runners for the next season's crop. The runners from the old strip will soon cover the new ground, and as soon as this is the case, (say about the first of September,) dig under the whole of the old plants, and the strip will serve in its turn for an alley the next season. In this way the strips occupied by the plants are renewed every season, and the same plot of ground may thus be continued in a productive state for many years."

"But if you wish fine, large berries it is better to plant in hills two feet apart one way and from eighteen inches to two feet the other way. Cut off the runners whenever they appear. Keep the ground clear by the use of the hoe and by mulching in summer, and top-dress with littersy manure in the fall. This will enrich the ground and serve as a protection to the plants. Planted in the spring, they will bear a good crop the next summer twelvemonth, (and if in August a very fair crop,) and will give two heavy crops and perhaps three, though it is better to have a new plantation coming on and dig up the old plants after the fourth year. Mr. K—— says they will bear good crops for a dozen years or more, and as he is a 'Rev.' we dare not doubt his word."

"How are the cauliflowers that were planted out early and covered with boxes?"

"Well sir, they are all eaten up except two. We eat one or two in the house, and the worms and flies eat up the rest! However, I replanted, and have a nice lot coming on. A gardener must never be discouraged. Plant and replant, and plant again. Persevere, and you will finally triumph over all obstacles."

"*But the pear blight?*"

"Well that is discouraging; but the same principle will hold good. If a tree blights set out another one this fall, and if that blights plant again. There is nothing else to be done. I have to cut out blighted branches almost every day, and I have known a branch to blight while I was at dinner!"

"The disease has been known for a century, and

many speculations have been advanced as to its cause, but not one entirely satisfactory. Some say it is because the ground is cultivated—but they also blight in grass land. Some think it is because we use too much animal manure; but trees that have never had any manure blight also. Others think it is owing to our severe winters; but if this is so it seems strange that one tree should blight while another of the same kind standing beside it should entirely escape."

"The late A. J. DOWNING thought it was caused by a severe winter following a damp, warm autumn. The wood in this case is immature, and while the winter might not kill the wood at once it might so affect the sap and sap vessels that the tree would blight the next year. This is very plausible."

"I have been thinking lately that it might have been caused by a fungus taken up by the roots. The Rev. Mr. BERKLEY mentions several cases in which plants have been diseased in this way. If this should prove to be the case, we shall soon discover a remedy. For myself, I mean to try a heavy dressing of lime this fall,—say 150 to 200 bushels per acre. A light dressing would not do much good. It is a well known fact that since artificial manures have to a great extent taken the place of lime in England, diseases of all kinds have been more common."

"If it is caused by a fungus, the diseased branches should be immediately cut off and burnt. If left on the ground the spores may be washed into the soil and extend the disease next year."

"Smut in wheat is known to be caused by a fungus that attaches itself to the seed and is taken up into the circulation of the plant. Pickling the seed with salt water and drying it with lime kills the spores of the fungus, and thus prevents the disease. Clover sickness, which is so troublesome in England, is now supposed by some to be caused by a fungus. So is 'fingers and toes' in turnips and cabbages, and so also is the potato disease. Why not the blight in the pear? and if so, may we not discover a remedy?"

"It is pleasant to watch the cabbages, cauliflower and celery grow this warm, rainy weather. Here is one row of celery much better than the others, and for no other reason except that more care was taken in preparing the trench. The bottom spit was thrown out and the surface soil put at the bottom. It is two feet high, and needs earthing up."

"Perhaps celery will grow larger if not earthed up till it has nearly reached its growth, but it will

not be so sweet and tender. Better earth up repeatedly as it grows, cutting off the suckers and being careful to keep the soil from the center of the plants."

"Melons are growing nicely. Some fruit is already set, and it is time to pinch in the runners."

"Tomatoes never looked better. They are too good. I gave them a good feed of superphosphate when they were set out and a little peppering of sulphate of ammonia since. The latter makes the vines grow. The former I thought would favor early maturity. I think so still, but I fear I have got on a little too much ammonia, especially if we have much rain. The vines are four feet high already, and there are tomatoes larger than a hen's egg. I have mulched them with the clippings of the lawn to keep the fruit clean. It will probably be necessary to pinch in the tops."

"One thing is certain. Superphosphate is good for beets. Here are some over four inches through and sweet as a nut, and tender as—Champion of England peas."

PRESERVING DAHLIA TUBERS.—A correspondent of the "Journal of Horticulture and Cottage Gardener," writes as follows: "May I be permitted to offer a simple suggestion relative to the preservation of Dahlia roots during winter? Though carefully dried before storing away in the autumn, I used continually to lose them by the rotting of the crown, till at length the idea one day occurred to me that the mischief was occasioned through the decay of the long stalk left attached to the tubers, this becoming partially charged with fluid kept the crown constantly wet. My remedy has been not to leave more than four inches of stalk; from this to scrape the whole of the outer covering or bark, and at the base to make a small opening which permits any watery deposit to escape. The result has been that I have preserved the whole of my tubers, while experienced gardeners around me have complained of loss, notwithstanding that every precaution from damp or frost had been taken."

HORTICULTURE AT THE WEST.—The *Illinois Farmer* says the war is swallowing up all interest in agriculture at the West, but not so in fruit growing. The last spring has been a busy one for the tree planter, and, for about the first time, brains, trees and muscles have been used, regard has been paid to variety, form of tree, quality of preparation of soil, and, what is of immense importance, shelter.

FRUIT GROWERS' SOCIETY OF WESTERN N. Y.

THE Annual Summer Meeting of the Fruit Growers' Society of Western New York, was held in this city June 25th.

HUGH T. BROOKS, President of the Society delivered an eloquent and interesting address. He thought there was scarcely any worldly interest more important than that of fruit culture, and scarcely any that has been treated with more indifference and neglect.

In the brief record of man's early history, we are told that "the Lord God formed man of the dust of the ground," put him into a garden and there made "to grow every tree that is pleasant to the sight and good for food." Yes, good for food. He thought that if the business men of this age were getting up a world, about the last thing they would think of would be a fruit tree, and almost the last thing they would do would be to care for it.

Fruit, like everything truly valuable, must be sought with care and pains. The rule is, that if a man will not work, neither shall he eat. He thought the armies of caterpillars, worms, and all sorts of insects were sent to punish man for his laziness and indifference, and to teach us that eternal vigilance is the price of fruit. Multitudes of men and women will start up and say: We have tried everything; we have smoked, snuffed, ashed, limed, and crocened the worms, till we have killed the bushes. What more could we do? "I'll tell you," said he. These enemies have been making their approaches for years. They first sent out their skirmishers, then established their pickets, but we paid no attention till they made their assault in full force, and then we were overwhelmed. Our agricultural and horticultural journals have been giving pictures of these insects for years, and telling us to be on our guard - but we paid no attention. When they were few, we could pull their heads off, which we feel confident, is a 'certain cure;' but having outnumbered the locusts of Egypt and filled the ground with their deposits for another year, it will take a good deal of dust and smoke to use them up. Still, the regular use of slaked lime will kill the currant worm."

We need more knowledge. And we need the stimulus which meetings like the present impart, to excite us to increased efforts to overcome the difficulties in the way of raising fine fruit.

The members of the Society proceeded to discuss the following subjects:

QUESTION I.

What is the best form of pruning the Dwarf Pear tree, and what is the best for the Standard, and the best season for doing it?

President BROOKS said he recently called on a friend who had set out many trees, and he (Mr. B.) told him they were not properly pruned, but on being asked what was the proper method of pruning, he found it more difficult to answer than he expected.

Mr. HOAG, of Lockport, was called upon. He "agreed with the President."

Mr. TOWNSEND, of Lockport, said in regard to the form, he decidedly preferred the pyramidal; keeping the lower branches the longest and shortening in the top, cutting to within three or four buds. Preferred to prune after the severe frosts of winter were passed. If pruned too early the leading bud suffers.

President BROOKS—"How near the ground would you commence?"

Mr. TOWNSEND—With a dwarf pear, would commence about a foot from the ground. This allows room for tilling the ground. With standards, about eighteen inches to two feet. Would prune standards in the pyramidal form, leaving more top than with the dwarfs. Vigorous growing varieties should not be pruned so closely as those of slower growth. Would like to hear from Mr. ELLWANGER.

Mr. ELLWANGER agreed with Mr. T.

Mr. DOWNING, of Newburgh, thought the branches should not be too near the ground, as the fruit was small and of inferior quality. Upright growing sorts might branch a foot from the ground, but horizontal growers should be two feet, and for standards three feet.

Mr. MOODY, of Lockport, thought the pyramidal not the best form. The inside of the tree should be thin and open. Pruning outside, merely to keep the tree in shape was not a good method.

Mr. TOWNSEND thought pruning should not be carried to extreme. He had suffered at first from too close pruning.

H. M. HOOKER had also found that he had pruned too much. The trees were too thick. This spring he had cut out the laterals—shortening them so as to make fruit spurs.

Mr. FISH agreed with Mr. Townsend. Pruning was not understood. Farmers let their trees run up too much. If they pruned at all, they cut off the bottom branches and let the top run up!

H. N. LANGWORTHY—Pear growers are pruning too severely. Trees want to have a little more their own way. Has been practicing on standards; keeping the centre out and giving the side branches more room, and cut out so as to give plenty of air. Has three or four leaders to each tree. The tree will still keep a pyramidal form.

W. H. LEE, of Newark, was called out. He cuts back the shoots in August, in order to develop fruit spurs next year.

QUESTION II.

What are the advantages of pinching?

Mr. ELLWANGER—Summer pinching has several advantages: 1st. It checks the lateral growth and assists the formation of fruit spurs. 2d. It assists in thinning out lateral branches, and prevents the filling up of the tree and lets in the sun. 3d. It lessens the pruning of the following winter. He pinches in June, when the shoots are five or six inches long, pinching in to three or four buds. Does not pinch the shoots designed for the formation of the tree, only the lateral shoots. If strong shoots are pinched, they will make a second growth.

QUESTION III.

What is the cheapest and best method of cultivating the Pear?

Mr. TOWNSEND was called out, and said the only way he knew was to "take a good stock, set a bud in it of the kind you wish to grow, cultivate, manure, and take care of it!"

QUESTION IV.

What useful results have been found to follow the use of Ashes, Lime and Charcoal? Upon what fruits, and how applied?

The President had set out an apple orchard of twelve

acres. Part of the orchard was on an old charcoal bed, and there the trees grew most luxuriantly, and were decidedly the best in the orchard. The charcoal was also applied to some of the trees. He considered charcoal a valuable manure. It should be used to absorb the liquid manure, and absorb the ammonia. Its use would double the value of manure the country through.

JOSEPH HARRIS asked the President if it was not possible that the land on which the old charcoal bed stood had not received more or less *ashes* from the wood that was burned in making the charcoal; and if this might not account for the great growth of the trees on this portion of the land?

The President answered in the affirmative.

Mr. ELLWANGER had the pleasure of visiting the orchard alluded to. He must acknowledge that he was never so surprised. The whole orchard was fine, but the trees with charcoal were exceedingly large, and hanging down to the ground.

Dr. BEADLE, of Canada, said he had often heard English gardeners speak highly of the value of burned soil. They take old sods, and mix lime with them. The mass takes fire.* Did not the charcoal used by the President contain burnt clay? He had used pure charcoal on trees and strawberries, but could see no beneficial effect from it. Fresh charcoal will absorb the gasses largely, but old charcoal will not absorb much.

Dr. SYLVESTER said charcoal will absorb fourteen times its weight of water, and therefore charcoal will keep the soil moist. It will also absorb ammonia from manure. Some ten years ago, in planting an orchard, he put half a bushel of charcoal under each tree. He did not leave any without charcoal, but the trees did remarkably well, and he attributed it to the charcoal. He lost only five trees out of one thousand planted. Some of our black-ash swamps contain deposits three or four feet deep of a black matter closely resembling charcoal, that was an excellent fertilizer. He used it in making a compost with manure. If acid, it should be frozen, or mixed with lime and salt. Had used it for years with success.

The President said the free use of animal manure often caused the trees to blight, and he was glad to hear of a substitute.

L. B. LANGWORTHY was in doubt as to the cause of blight in the pear. The free use of animal manure, and perhaps artificial manures, produced a plethoric condition of the trees, and favored disease.

Mr. ELLWANGER asked if the trees did not grow as luxuriantly when the country was new and before the blight was known?

Mr. LANGWORTHY said he never knew a time when the pear trees did not blight, during the last thirty-three years.

In regard to charcoal, he agreed with Dr. BEADLE. It is not a manure in itself. *Ashes* are valuable for everything.

Mr. HOLMES, of Syracuse, had used ashes on a clay soil for grapes, and found that they improved the quality and early maturity of the grapes.

*Is not this a mistake? We have seen in England large quantities of sods burnt, principally from old headlands, but we never before heard of the plan of burning them with lime. Lime and old sods make a good compost. They will decompose; but that the heap will take fire, is, to say the least, very doubtful. [Eds.]

'QUESTION V.'

The application of manures to the surface, at what season is the application most beneficial, and in what condition should the manure be when applied?

E. MOODY thought applying manure on the surface a wasteful practice. It might do good as a mulch. But as a rule he liked to plow it in. If he applied it on the surface it should be early in the spring. He could see no advantage of applying it in the fall.

L. B. LANGWORTHY—Applying manure in the fall to meadows is universally acknowledged to be an excellent practice. For fruit trees, he would apply the manure on the surface in a rough condition.

Dr. SYLVESTER said ten years ago he plowed manure in deep. He has now changed his practice, and spreads a good deal on the surface. He composts his manure with muck. In the fall the heap will cut down like old cheese. Applies this in the fall on the surface. Mulches strawberry beds with it, and they do not winter-kill. Dwarf pear trees are treated to an allopathic dose. Spreads it in the fall and forks or drags it in in the spring.

Mr. HOLMES put a shovel-full of charcoal on the top of his potato hills. It absorbed all the moisture, and the potatoes did not come up.

Mr. DOWNING would fork in manure in the fall an inch or two deep.

H. N. LANGWORTHY uses liquid manure on his trees. It has a remarkable effect. Used it last season, and the shoots of his pear trees were five feet long. They are on a light sandy soil. He puts it on in wet weather and in dry, just when convenient. Has never seen other manure produce such beneficial effect. This can be applied at any season of the year. Ordinary manure, in a dry season, sometimes shrivels up the trees. When it is used, he would apply it in the fall.

QUESTION VI.

The Currant Worm. What are its habits? What are the most effective means for its destruction?

Mr. ELLWANGER said slacked lime dusted on the bushes was an effectual remedy if applied thoroughly and repeatedly. The lime does not hurt the foliage. They had an acre of currants, and had been using the lime for two weeks. The lime for an acre did not cost more than two dollars. Thinks it a certain remedy.

H. N. LANGWORTHY—Soft soap is an effectual remedy, and within reach of every family. It must be strong, say one pint of soap to two gallons of water. Shower the bushes with it and it will kill the caterpillars.

Dr. BEADLE—In regard to its habits, he would say that it has the habit of eating the foliage off the bushes! Had killed them with two applications of lime.

Dr. SYLVESTER had used one pound whale oil soap dissolved in four gallons of water. It is effectual if applied thoroughly and perseveringly every other day.

QUESTION VII.

The White Grub. What are its habits? What are the most effective means for its destruction?

L. B. LANGWORTHY—The white grub is the larva of the May-bug. Is four years before it changes to the perfect insect. Commences its depredations the second year; the fourth season it is not so injurious. Knows no way of killing them. They delight in feeding on the strawberry plant. This season, insects of all kinds are less

merous than common. There were few May-bugs, but expects a great many of them next year. There are few June-bugs. The curenlio is also scarce, and there are also very apple-tree caterpillars.

Mr. ELLWANGER had observed that where nightsoil was used, there you would always find plenty of white grubs. It should be composted for four years before using.

Mr. HERENDEEN had tried to kill them with salt, but without success. Had put them in salt, and they lived right along!

Mr. NELSON had noticed that they were abundant where cow-dung was used.

QUESTION VIII.

Has the use of salt been found to be beneficial to quince or plum trees?

Mr. ELLWANGER uses salt and ashes for plum trees, and the growth is splendid. Applies it in February, scattering it between the trees till the ground looks as if it had had a sprinkling of snow.

Mr. DOWNING thought salt a good manure, but it will not kill insects.

Dr. BEADLE said a neighbor of his had a quince tree that bore no fruit. He read in the *Genesee Farmer* that it was good. He applied a peck to the tree and it has borne ever since.

Mr. TOWNSEND had applied salt to quinces with good effect.

Dr. SYLVESTER believed in salt, but there is danger of applying too much. Asparagus liked salt, but he had killed even asparagus by putting on too much.

H. N. LANGWORTHY had used salt for the currant worm that killed the caterpillars—and the bushes also!

QUESTION IX.

What new varieties of the strawberry have been found to promise well in the experience of this Society?

L. B. LANGWORTHY—Wilson's Albany and Triomphe de France.

Mr. ELLWANGER said these were old varieties.

Dr. SYLVESTER mentioned the *Fillmore*, a Baltimore variety, which promises well. *Cutler's Seedling*, a Boston variety that beats the *Wilson* in that city. *Austin*, large, hardy and productive. A desirable variety, but somewhat wanting in flavor.

The regular subjects being exhausted, Mr. LANGWORTHY raised the question whether the increase of birds was desirable to the fruit grower?

Mr. FISH had taken pains to encourage the birds on his grounds. They destroyed some fruit, but on the whole he thought them advantageous.

Mr. ELLWANGER thought that they did more good than harm. He liked to see them. Should raise fruit enough to be able to spare them a little.

L. B. LANGWORTHY asked if any man knew a bird that would eat a curenlio, or a rose-slug, or a squash bug, or other injurious insects. He did not. They destroyed immense quantities of fruit, and he thought the law for their preservation "unconstitutional!"

Mr. GAVITT thought they did more harm than good. Would not eat a worm so long as they could get fruit.

Dr. SYLVESTER—We raised the fruit and missed it; but we do not miss the insects. Open a bird, and you will find the insects. Watch a nest, and you will be surprised to see how many worms and insects the old bird brings to her young.

The following named gentlemen were appointed as delegates from the Society, to attend the meeting of the American Pomological Society, to be held at Boston, Mass., on the 17th and 18th of September next:—JOSEPH FROST, of Rochester; W. P. TOWNSEND, of Lockport; E. W. SYLVESTER, of Lyons; S. N. HOLMES, of Syracuse; T. C. MAXWELL, of Geneva; E. MOODY, of Lockport.

The following delegates were appointed to attend the meeting of the New York State Agricultural Society, to be held on the 30th of September next:—E. MOODY, of Lockport; H. N. LANGWORTHY, of Rochester; S. B. GAVITT, of Lyons.

The Society then adjourned to meet in this city on the first day of the Fair of the New York State Agricultural Society, Sept. 30.

EXTERIOR SIGNS OF THE QUALITY OF PEARS.

Pears, pyriform, uneven or gourd-shaped, with thick skin, sometimes wrinkled, of green color, with more or less russet, passing to golden yellow, and tinted more or less with carmine on the sun side: with skin entirely brown, russet or green bronze, or yet burnt earth of sienne color, (rich brown) light or pale green united or relieved and tinted with vermilion or shaded with sienne, are generally those which may be judged to be buttery, melting, and of the best quality.

Pears oviform, stem slender, long, with fine skin, shining, very finely and thickly studded with small brown dots, are usually melting fruits, acid, astringent, ripening very quickly, and finally of the second or third order, passable or bad.

Pears with thick skin, dark or raw green, shining, thickly dotted where the reddish brown is placed in patches on the side which is struck by the rays of the sun, passing or not to ochre yellow and red at the latter end of the season, indicate generally fruits capable of long preservation, and suited for cooking.

Observation has enabled us to state these facts, which have very few exceptions according to us.—J. DE LIRON D'AIROLES, in *Revue Horticole*.

LOSS OF FRUIT BY INSECTS IN ENGLAND.—Under the head of "*The Want of Small Birds*," the *Worcestershire Chronicle* mentions the great damage done to plum, cherry and other fruit trees in that section by the green caterpillar. "In some places," it says, "the trees are quite shrivelled up, and sapless and withering, as though a blast from a hot furnace had swept across them."

SCREENS ON THE PRAIRIE.—The *Illinois Farmer* recommends the cottonwood, tree willow, and silver leaved maple for planting on the prairies. In a few years they will make an effective screen for orchard and farm crops.

GUANO FOR GRAPES.—A correspondent of the *Gardeners Chronicle* has used guano for grapes, and speaks of its effects in the highest terms. He sowed it broadcast on the border and forked it in.

HORTICULTURAL ITEMS FROM FOREIGN JOURNALS.

CINERARIAS are said to be a cure for the green-fly in orchard homes. The fly attacks the cinerarias and lets the peach trees alone.

Asparagus is said to be a sure witness to the earliness and lateness of the season. This year it was a month earlier than in 1860.

The *Journal of Horticulture* speaks of a head of Carters Champion brocoli, two feet three inches in circumference and even and beautifully grown.

Arrangements are in progress for constructing an "Exhibition Palace and Winter Garden" in Dublin. The grounds devoted to the purpose comprise 16 acres.

Thomas Rivers has issued another (the tenth) edition, enlarged and improved, of his little book "The Orchard House." The cultivation of fruit in these orchard houses is yearly becoming more and more popular in England.

CHARLES DARWIN has written a work "on the various contrivances by which orchids are fertilized by insects, and the good effects of intercrossing." The object of the work is to sustain his theory "on the origin of species."

We have lately heard little of the new lawn grass, or moss, *spargula pilifera*, of which so much was said a year or two ago. A writer in the last *Journal of Horticulture* speaks of it as tolerably satisfactory, though he thinks it will have a tendency to turn yellow. We tried it here, but it did not succeed.

The Royal Horticultural Society has received a number of "Tree Frogs" from the south of France. "They are not only charming for their beauty, and the marvellous similitude which they bear to the leaves among which they live, but are most useful in a conservatory in cleaning off green-fly and all sorts of insect vermin."

The caterpillars on the gooseberry and currant bushes seem to be as troublesome in England as with us. A correspondent of the *Journal of Horticulture* writes, "I have had three women constantly picking on the gooseberry, apple and currant trees, and our destruction of caterpillars has been by bushels." He attributes their increase to the destruction of the birds.

M. BARRAL, in his letter of May 12th, from London, to the *Revue Horticole*, says, in speaking of the Kensington Gardens, that "The oriental and Chinese marvels, the enchanted palaces of fairy stories, the most beautiful conceptions of the poets,

are all surpassed." And he adds, "One has need of flowers to console oneself for the grayest of skies, the most frightful weather, and the gloomiest fogs that one can imagine."

M. NADIX, in his report of an exhibition of the Imperial Horticultural Society says: "The accessory arts of gardening have too large a place in this exhibition. Seeing these machines of all forms, these complicated and costly utensils whose object is to perform the most simple work, only tends to discourage novices in gardening. No machine, however ingenious, can replace the common utensils, of which experience has sanctioned the usage. Man is the true instrument, and he it is, he alone, whom it is necessary to perfect. While horticultural knowledge is no wider spread, while gardeners confine themselves to the routine of their work, indifferent to anything but mere manipulation, and ever guided by old tradition, no improvement can be expected.

PLANTING STRAWBERRIES AT NIGHT.

"VERY nice strawberries, sir; fine Hovey's Seedlings, only fifteen cents a quart," said the old marketman to me, a few mornings since.

"Thank you, I am growing my own strawberries," I replied.

"Indeed," said he, in surprise. "I thought you were giving your attention to flowers only."

Last year I purchased one hundred plants of Wilson's Albany Seedlings; planted them in ten rows, one foot apart. The man from whom I purchased them took them up, at my request, in the night time, and packed them after night; and I planted them at night, so that no sunlight ever touched the roots. Last year they produced probably five or six quarts. In September, I hoed them and cleaned them of weeds; in December, mulched them with sawdust; this spring, removed the sawdust. The plants are healthy and vigorous, and very prolific bearers. I have already gathered more than two gallons of fruit from this little spot of ten feet square, and there are at least ten gallons yet in prospective now on the plants.

Every family owning a house and lot in this city might, just as well as not, grow their own strawberries, as well as many other small fruits; but the truth is, that there are not more than thirty or forty families, in a city of twenty thousand inhabitants, who grow their own strawberries. — J. H. KLIPPART, of Columbus, Ohio, in the *Ohio Farmer*.

We do not attribute much importance to such *night-work*. We cannot think that a little *light* would have hurt the roots so much. If it does, dipping the roots in a puddle made of clay and water as soon as they were taken out of the ground would, it seems to us, by encasing the roots in a thin coat of clay, effectually exclude it. This, in fact, is a practice often resorted to in transplanting trees and plants, and more especially when they

to be taken to a distance. The object is to keep the roots moist, but it will also exclude the light, if that is so desirable.

What Mr. KLIPPART says about every family raising a small lot raising their own strawberries true. A few plants set out at this season and properly attended to—and it is in small gardens that we may look for the best culture—will give a crop of nice fruit next year.

THE GROWTH OF THE DOUGLAS FIR TREE

The *Gardeners' Chronicle* has carefully examined the great Douglas Fir Tree now shown at the International Exhibition, and says that it has taken 34 years to grow. The tree is 309 feet in height, and the section at the exhibition is 6 feet in diameter, 36 inches on one side and 34 inches on the other. Its rate of growth on the 34 inch side has been as follows:

The first two inches across were made in	7 years.
second " " " " " "	9 "
third " " " " " "	12 "
fourth " " " " " "	19 "
fifth " " " " " "	17 "
sixth " " " " " "	23 "
seventh " " " " " "	16 "
eighth " " " " " "	17 "
ninth " " " " " "	14 "
tenth " " " " " "	18 "
eleventh " " " " " "	24 "
twelfth " " " " " "	21 "
thirteenth " " " " " "	24 "
fourteenth " " " " " "	24 "
fifteenth " " " " " "	31 "
sixteenth " " " " " "	36 "
seventeenth " " " " " "	42 "

34 inches in semi-diameter in 354 years. Though three centuries and a half old, and though for the last forty-two years it increased less than one-tenth of an inch in diameter yearly, it is perfectly sound to the heart.

STRAWBERRY CULTURE IN ILLINOIS.

The editor of the *Prairie Farmer* has visited the "strawberry patch" of Mr. SIMMS, of Aurora, Ill., and says:

"In the spring of 1861 he planted out twenty acres, and these mostly the Wilson's Albany. The white grub destroyed about four acres, leaving now about sixteen acres in full bearing. Mr. S. has thirty-two acres in small fruits. The land occupied has formerly been used for general farm purposes, and lastly in corn. It was plowed about seven inches deep with the Michigan sod and sub-plow, and thrown well into lands about a rod wide. On these the rows are set; all runners between rows are kept short, but have been allowed to extend with the row. The growth of the plant very luxuriant, and the yield and size of berries large. Mr. S. designs to make a large quantity of

wine from his berries, and has his cellar prepared on the ground, with presses, etc., in the room above. His experience with the Triomphe de Gand will not warrant him in extending its cultivation largely."

WHAT PEARS SHALL WE PLANT?

At the recent Meeting of the Western New York Fruit Growers' Society, one of the questions asked was: "What are the best eight varieties of pears for market, and on what stock should each be cultivated? What are the best ten varieties for family use, embracing a succession through the year, and on what stock should each be cultivated?"

The members were requested to hand in the names of the varieties which they preferred. This was done, with the following result:

FOR FAMILY USE—ON PEAR ROOT.

Bartlett.....	10	Doyenne d'Été.....	4
Seckel.....	9	Des Nonnes.....	2
Flemish Beauty.....	7	Belle Lucrative.....	3
Osband's Summer.....	6	Rostiezer.....	2
Sheldon.....	6	Beurre Giffard.....	2
Lawrence.....	4		

A number of other varieties received one vote each.

ON QUINCE.

Easter Beurre.....	6	Beurre Diel.....	2
Seckel.....	9	Duchesse d'Angouleme.....	3
Louise Bonne de Jersey.....	4	Belle Lucrative.....	2
Glout Morceau.....	4	White Doyenne.....	2
Beurre d'Anjou.....	3	Vicar of Winkfield.....	2

Several other varieties one each.

FOR MARKET—ON PEAR ROOT.

Bartlett.....	9	Lawrence.....	3
Sheldon.....	5		

Rostiezer and several others one vote each.

ON QUINCE.

Duchesse d'Angouleme.....	10	Flemish Beauty.....	4
Louise Bonne de Jersey.....	9	Vicar of Winkfield.....	3
Seckel.....	4	Doyenne Boussock.....	2

Triomphe Jodoigne, White Doyenne, Easter Beurre, and several other varieties, obtained a single vote.

ALOES FOR SQUASH BUGS.—**SOLON ROBINSON** says: "Probably the effectual, while it is the most easy remedy for the little pests that eat up our vines, is water made intensely bitter with aloes—say two ounces to a gallon. This may be put upon the vines with a fine rose-jet watering pot; or, better still, with a fine rose-nozzle syringe. It has been applied successfully in France and England, and to some extent in this country. It is said that it will also repel rose bugs, and the green slugs that destroy roses and grapes. If it will keep the stupid bugs off the squash and melon vines, it will be an invaluable remedy and not an expensive one."

KEEPING GRAPES.—The *Gardeners Chronicle* states that Mr. THOMSON, of Dalkeith, adopted the following method of keeping grapes, with great success: In cutting the grapes he left the bunches attached to the branches that bore them; sharpened the points of the branches where they had been detached from the parent stem, and ran them a couple of inches into mangel wurzel roots. They were laid on the shelf of the fruit room, and the grapes allowed to hang over the shelf, where they could be cut as required. They kept perfectly plump till the last bunch was consumed.

Young People's Page.

THE THIEF AND THE BEGGAR.

WE have here another of HOCHSTEIN'S spirited sketches. A mouse has stolen some of the farmer's grain, and is met by another mouse, who, with hat in hand, humbly solicits a portion.

What the artist intended to represent by the picture, we do not exactly know. Perhaps some of our young readers can discover. He may have intended to show, that no matter how fraudulently property is obtained,

that "the liberal soul shall be made fat," it is nevertheless true that it is far better to be "close," if with it we are upright and honorable in our dealings, than to be ever so generous if with it there is a lack of honesty.

Perhaps, after all, he did not mean this. You see the mouse with the grain has on a working jacket and a cap, while the other has on a long-tailed dress-coat and a hat. He is, we may suppose, one of those lazy sort of fellows who think "the world owes them a living." Perhaps he was "born with a silver spoon in his mouth." His father and mother, by care and prudence, had laid by something for a rainy day. Master Mouse thought it beneath him to work. He set up for a gentleman; was



there will always be found some who are willing to pay court to the possessor.

Perhaps he meant to show that the receiver of stolen property is as bad as the thief.

An English gentleman once won a large sum of money by betting on a race. As he was going home in his carriage, he commenced to count over his big roll of bills, but falling asleep, the wind blew them all away. He awoke just in time to see the last bill go through the window of the carriage, and exclaimed, "Light come, light go." Perhaps some such idea is here represented. He who comes easily by his money, can afford to be generous.

You have all heard the story of the two broom pedlars. They were selling in the same town, and one tried to undersell the other. "How is this!" exclaimed one, "that you can undersell me; I stole the material of which my brooms are made." "Oh!" said the other, "*I stole my brooms ready made!*"

We sometimes hear it said that such and such a man is "close;" while of another it is said, "he does not know the worth of money." Now, while we all like a generous man, and while we have the highest authority for saying

rather fast. When his father and mother died, he wasted his substance in riotous living, and now we see him, with a forlorn look and a shattered constitution, compelled to ask alms of the hard-working, active little mouse that he was ashamed to speak to in the days of his prosperity.

THE BOY AND THE BRICK.—A boy hearing his father say "Twas a poor rule that would not work both ways, set up a row of bricks three or four inches apart, tipped over the first, which, striking the second, caused it to fall on the third, and so on through the whole course, until all the bricks laid prostrate.

"Well," said the boy, "each brick has knocked down his neighbor who stood next to him; I only tipped one. Now I will raise one, and see if he will raise his neighbor. I will see if raising one will raise the rest." He looked in vain to see them rise.

"Here, father," said the boy, "is a poor rule; 'twill not work both ways. They knock each other down, but will not raise each other up!"

"My son," said the father, "bricks and mankind are alike, made of clay, active in knocking each other down, but not disposed to help each other up."

Ladies' Department.

ORIGINAL DOMESTIC RECEIPTS.

Contributed to the Genesee Farmer.

RASPBERRY JAM.—Allow three quarters of a pound of sugar to a pound of fruit. Press the berries with a wooden spoon in an earthen dish. Add the sugar and boil fifteen minutes.

RASPBERRIES.—This fruit, though delicate, can be put in cans with a quarter of a pound of sugar to a pound of fruit. The air being expelled as perfectly as possible setting the cans in hot water and then sealing them while hot in the usual way.

TOMATOES.—Take large, smooth tomatoes, and cut them the top, carefully taking out the seeds. Prepare some bread crumbs with pepper and salt, and add a little butter. Rub each tomato with as much of this stuffing as possible and bake in a pan as you do apples.

PINE APPLE ICE CREAM.—Pare a ripe, juicy pine apple, chop it up fine and pound it to extract the juice. Cover with sugar. When the sugar has entirely melted, strain the whole into a quart of cream, and add about a pound of sugar. Whip the cream, and freeze in the same manner as common ice cream.

BLACK CURRANT WINE.—Mash up the currants and let them stand twenty-four hours. Then press out the juice straining it through a cloth, and to each quart of juice add two quarts of water and three pounds of sugar. Put into a barrel and allow it to ferment in the usual way. The wine is almost equal to port.

BOILED TOMATOES.—In order to have tomatoes nice, cooked in this manner, the largest ones must be selected. Cut them into rather thick slices, seasoning each piece with pepper and salt. Use an oyster gridiron to broil them on—a common one will answer—and cook them but a few moments. When sent to the table add butter.

WATER ICES.—These are made with the juice of any kind of fruit sweetened and mixed with water. A little of the pulp carefully strained may be added, and sweetened with sugar boiled to a syrup. It will require a full pint of the mixture to fill a quart mould. The white of an egg added is an improvement. The mixture must be very rich, adding only a pint of water to two quarts of the juice.

RASPBERRY WINE.—As home-made wines are becoming so deservedly popular, that made from raspberries will take a high place. It is made like currant wine, only using rather less sugar. If carefully bottled, it is very good the second year. It is often forgotten that domestic wines require age to perfect them as well as imported ones. When new they are too sweet to be either healthful or palatable.

BLACKBERRY SYRUP.—This should be prepared in every family on account of its efficacy as a remedy for summer complaints.

To two quarts of blackberry juice add one and a half pounds of sugar, half an ounce of cinnamon and cloves, and a quarter of an ounce of allspice. Boil it thoroughly, and

while cooling add one pint of the best brandy.

DOSE.—For an adult, half a gill to a gill: for a child, a tea spoonful or more, according to its age.

TOMATO PUDDING.—Slice the tomatoes, place a layer of them in the bottom of an earthen dish, cover with bread crumbs profusely seasoned; add another layer of tomatoes and cover with bread crumbs as before, and when the dish is filled place on the top a piece of butter. Put the dish into a moderate oven, and if two layers of tomatoes fill it twenty minutes will be long enough for them to be sufficiently cooked.

Tomatoes are very nice stewed with bread crumbs, as they are so juicy that without the crumbs they have not sufficient consistency.

SKELETON FLOWERS.

THESE exquisite bouquets do not deserve so lugubrious a name. A mystery seems to hang about them. They are not natural, and yet they are too delicate to be art. One could fancy them to be the ghosts of flowers, but not the skeletons. This is the month when the most beautiful selections can be made, and we take pleasure in giving some directions for making them, from *Godey's Lady's Book*, which seem as clear as any we have seen:

DIRECTIONS.—The leaves should be steeped in rain water in broad open bowls, and exposed to the sun and air until all the soft parts are perfectly decayed. The water should not be changed, but the bowls filled as the water evaporates. Some kinds of leaves will be ready to clean in the course of three or four weeks, others will require a much longer time; but as it depends very much upon the heat of the sun and the age of the leaves when gathered, no precise period can be named. In some leaves the skin will peel off in small particles, in others it can be peeled off entire, or it may decay altogether.

The bowls should be examined occasionally, and the leaves ready for cleaning removed to a basin of soft water; they should then be gently rubbed in the water with the fingers till every particle of skin or green pulp is removed from the fibre: should this not succeed, the stronger leaves may be cleaned with soap and flannel. This will finish the skeletonizing process. The fibres should then be carefully dried, having first pressed them in a soft towel, in order to remove the moisture. They are now ready for bleaching, and may be laid away until a sufficient quantity is collected.

The liquor for bleaching is prepared by pouring a quart of boiling water upon a quarter of a pound of chloride of lime, in the powder. This should be allowed to stand until cold, and the clear liquor strained off, which may be bottled for use. When wanted for bleaching, mix with cold water in about the proportions of one part of the liquor to twenty of water, in shallow dishes; lay the leaves in, and let them remain until perfectly white, when they must be removed immediately and dried in blotting paper. If this solution should not be strong enough to bleach them in ten or twelve hours, a little more of the liquor must be added, but care must be taken not to use too much, or the finer fibres will be destroyed.

In the dissecting process, the leaves invariably come off their stems; they may be mounted, when bleached, either among some branched stalk, previously dried and bleached, or on fine wire, covered with white tissue paper.

The leaves should be gathered when fully grown, or the fibre is not sufficiently strong, and some leaves dissect much better than others. Among these are the poplar, maple, pear, ivy, holly, magnolia, etc.; the seed vessels of the large oriental poppy, the thorn, apple and henbane dissect well, and many smaller seed vessels, after they have shed their seeds, may be dried, and then bleached without steeping in water, as first directed.

Miscellaneous.

AN INDIAN STORY.—There is an Eastern story, which has its version in many languages, of a beautiful damsel, to whom a genius of surpassing power desired to give a talisman. He enjoined her to take herself across a field of standing corn; she was to pluck the tallest and largest ear she could find; but she was to gather it as she went forward, and never pause in her path, or step backward in quest of her object. In proportion to the size and ripeness of the ear she gathered, so would be its power as a talisman. She went out upon her quest, says the legend, and entered upon the field. Many a tall stalk of surpassing excellence met her glance, but still she walked on, expecting always to find some one more excellent still. At last she reached a portion of the field where the crops were thinner and the ears more stunted. She regretted the tall and graceful stalks she had left behind, but disdained to pick those which fell so far below what her idea was of a perfect ear. But, alas! the stems grew more ragged and more scanty as she trod onward; on the margin of the field they were mildewed, and when she had accomplished her walk through the waving grain she emerged on the other side without having gathered any ear whatever. The genius rebuked her for her folly, but we are told that he gave her an opportunity of retrieving her error. We may apply this mystic little Indian fable to the realities of daily life.

CIVILITY IS A FORTUNE.—Civility is a fortune itself, for a courteous man always succeeds well in life, and that when persons of ability sometimes fail. The famous Duke of Marlborough is a case in point. It was said of him by one cotemporary, that his agreeable manners often converted an enemy into a friend; and by another, that it was more pleasing to be denied a favor by his grace, than to receive one from any other man. The gracious manner of Charles James Fox preserved him from dislike, even at a time when he was, politically, the most unpopular man in the kingdom. The world's history is full of such examples of success obtained by civility. The experience of every man furnishes, if we recall the past, frequent instances where conciliatory manners have made the fortunes of physicians, lawyers, divines, politicians, merchants, and indeed, individuals of all pursuits. To men, civility is what beauty is to women—it is a general passport to favor—a letter of introduction, written in language that every one understands.

A BIG APPLE PIE.—An old lady in the country had a dandy from town to dine with her on a certain occasion; and on the table was an enormous apple pie.

"La! ma'am," said the exquisite, "how do you manage to make such a pie?"

"Easy enough," was the quiet reply; "we make the crust in a wheelbarrow, wheel it under the apple tree, and shake the fruit down into it."

THE WIVES OF CLEVER MEN.—"Clever men," said Lady Selina, "as a general rule, do choose the oddest wives! The cleverer a man is, I do believe, the more easily a woman can take him in!"

A MORAL FOR YOUNG LADIES.—"Listen," said I, "listen and attend, and you shall have a moral and example." When the wasp now on the window entered, you flew it with a kind of violence. I wonder it don't sting every one of you. Now in future, let a wasp, when it comes to have its little bout and make its little noise. Don't stir the muscle—don't move a lip—be as quiet as the statue of Venus, or Diana, or anybody of that sort, until the wasp seems inclined, as at this moment, to settle. Then do as I do now." Whereupon, dipping the feather end of my pen in a cruet of salad, I approached the wasp, and in the softest and tenderest manner possible, just oiled it up the body—the black and yellow, like grooms' waistcoats—when down it fell, turned upon its back, and was dead in a minute. "There girls," said I, "see what kindness a little oil does. Now here's my moral and example: when a husband comes home in an ill-humor don't come out and fly at him; but try a little oil—in fact, treat your husband like a wasp."

"MORE HAY."—An old gentleman who was always bragging how folks used to work in his younger days one day challenged his two sons to pitch on a load of hay as fast as he could load it. The challenge was accepted, the hay wagon driven around, and the trial commenced. For some time the old man held his own very creditably, calling out "More hay! More hay!" Thicker and faster it came. The old man was nearly covered; still he kept crying "More hay! more hay?" At length, struggling to keep on top of the ill-arranged heap, it began to roll, then to slide, and at last it went off from the wagon as the old man with it. "What are you here for?" cried the boys. "I came down after more hay!" answered the old man, stoutly.

A SCOTCHMAN having hired himself to a farmer, had his cheese set down before him that he might help himself. The master said to him, "SANDY, you take a long time at breakfast." "In troth, master," answered he, "a cheese o' this size is nae sae soon eaten as ye may think."

A SMALL PRESENT.—"I will give you my head," said Montesquieu, "if every word of the story I have related is not true." "I accept your offer," said the president, "presents of small value strengthen the bonds of friendship, and should never be refused."

"It seems to me I have seen your physiognomy somewhere before," said a swell to a stranger whom he met the other day, "but I can not imagine where." "Very likely," was the reply, "I have been the keeper of the prison for the last twenty years."

SOME malignant slanderer says, "Woman needs no eulogist—for she speaks for herself!"

THINKING.—No one learns to think by getting rules for thinking, but by getting materials for thought.

A MAN full of compliments is a dedication—a man of learning is a register.

WHAT fruit does a newly married couple resemble? A green pear.



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THE HALF VOLUME OF THE GENESEE FARMER.—We still continue our offer of Premiums to all who send us subscribers to the current half volume of the *Genesee Farmer*. See last page of this number.

NEW YORK STATE FAIR.—The prospects are favorable for a good exhibition. There is no better location in the State than Rochester for holding the fair, and we have no doubt, notwithstanding the excited condition of the country, that the attendance will be unusually large. The list of premiums can be obtained at this office.

NOTES ON THE WEATHER FROM JUNE 15TH TO JULY 16TH 1862.—At the close of these notes to June 16th, this section was suffering from great drouth. In the two weeks previous, rain had fallen along the middle part of the State and further westward in the southern counties. Here the drouth continued to the 17th. Frost appeared on the 16th, and heavier and somewhat injurious on the 17th, when a slight rain fell at evening and more before midnight, to the great relief of vegetation. On the next day more rain, and in the evening a rain through the night and next morning, of 0.56 inches. Warmer weather followed, and the grass, Indian corn and potatoes were no longer in ruins, but were rapidly growing. On the 25th and 26th fell a rain of 1.09 inches, and at the close of the month 2.23 inches, a very great rain. The spring crops were saved. The rain of the last half of June measured 4.27 inches; in the first half only .17 inches; in the month, 4.44 inches, and in the two previous months only 3.84 inches. The drouth could not but be severe, and yet the following rain and warmth almost compensated for it. Winter wheat did not suffer much from it. Strawberries came on in abundance.

The mean temperature of the last half of June was 64.7°, or 4.4° below the mean for 25 years; and the average of the month was 62.7°, or 2.5° below that for so many years.

July has so far given us the heat above the average, for the mean for this half is 71.8°, which is nearly two degrees above that for 25 years. With this heat and so much rain at the close of June, vegetation has made rapid progress, though the rain of this half is less than one inch. Grass has greatly improved, so that hay, which is already making, will not fail as much as was feared. Corn, potatoes, spring wheat, oats, &c., have grown with great rapidity. Winter wheat is being matured, and the harvest will be late. Strawberries have abounded; cherries are in great profusion and excellence; raspberries, red and black, are in market as the strawberries lessen; peas in variety, the richest now coming plentifully; new potatoes also, for those who love such young things; and vegetables of all kinds. What a country of good things is this, where the best government receives the support and homage of the best hearts. "Thou crownest the year with thy goodness; and thy paths drop fatness."

Agricultural Exhibitions for 1862.

NATIONAL.

Am. Pomological Soc., Boston.....	September 17—18
National Horse Show...Chicago.....	" 1—13

STATE.

Vermont.....	Rutland.....	September 9—12
Ohio.....	Cleveland.....	" 16—20
Kentucky.....	Louisville.....	" 16—20
Canada East.....	Sherbrooke.....	" 17—19
Indiana.....	Indianapolis.....	Sept. 29 to Oct. 4
Iowa.....	Dubuque.....	" 30 " 3
Illinois.....	Peoria.....	" 29 " 4
Do Hort. Society...Chicago.....	" 8—13	
New York.....	Rochester.....	" 30 " 4
New Jersey.....	Newark.....	" 30 " 4
Michigan.....	Detroit.....	" 23—26
Canada West.....	Toronto.....	" 22—26

A Dog Show.—A great dog show was held in London at the time of the Fair of the Royal Agricultural Society, and attracted an immense number of visitors—10,000 in a day. There were upwards of one thousand dogs on exhibition.

Agricultural Items.

PREPARED EXPRESSLY FOR THE GENESEE FARMER.

AN Oregon saw-mill recently turned out a 4-inch plank 107 feet long.

THE wool crop of Ohio this season is estimated at 13,000,000 pounds.

THE London *Agricultural Gazette* says summer fallows are "not yet exploded in France."

M. L. SULLIVANT, of Illinois, has or had to harvest this season 4,000 acres of grass, 600 of wheat and 100 of rye.

THE cherry trees in Massachusetts have not fully recovered from the effects of the severe winter of 1860-61.

A PATENT has been obtained in Russia for making cotton or silk from the common milk-weed of this country.

THE Peruvian Government has advanced the price of guano in England, to \$71 per ton, on all orders under 30 tons.

ALONZO SIMPSON, of Belmont, Mass, raised this year some Hovey strawberries measuring $5\frac{1}{2}$ inches in circumference.

THE imports of food into Great Britain last year, for man and animals, reached the enormous sum of \$380,000,000.

THE Illinois State Horticultural Society will hold its first fair at Chicago, Sept. 8-15—the time of holding the National Horse Fair.

A SUGAR MILL costing \$36,000 is to be erected at Tuscola, Ill. The farmers of the vicinity pledged themselves to plant 800 acres of sorghum.

THE average wages paid to farm laborers who board themselves, is in England and Wales, \$2,76 per week; in Scotland, \$3,06; and in Ireland \$1,70.

TEN swallows were recently dissected, and in their stomachs were found the remains of 5,482 insects, which must have been the results of a few hours feeding.

WALTER A. WOOD, of Hoosick Falls, N. Y., has manufactured and sold 30,000 of his well known reaping and mowing machines. 2,500 have been sold in England.

DURING the last 23 years, the rise in English wages has been only 12 per cent.; in Scotland, at an interval of 20 years, 42½ per cent.; and in Ireland, over 57 per cent.

THE Mayor of Southampton, Eng., fined a French poulterer \$2.50, or ten days imprisonment, for plucking a fowl alive. In his defence, he said it was the custom in France.

THE Illinois *Farmer* well observes, "Farmers who sow direct from the threshing machine can expect no other result than to have a large share of their wheat *turn to chaff*!"

AN American bred Short-horn bull, belonging to Mr. ALEXANDER, of Kentucky, carried off the first prize, of \$75, at the late Fair of the Essex Agricultural Society, at Halstead, England.

THE farmers of Iowa are turning their attention more than ever to sheep, and the Iowa *Homestead* says, "The way Iowa will turn out stock and wool in the course of a few years will astonish somebody."

THE grain shovellers in New York are on a strike. They refuse to work in places where "elevators" are used. Foolish men! There is work enough to do, and every man, instead of opposing them, should hail with joy every mechanical contrivance for lessening manual labor.

THE United States Agricultural Society propose to hold a great "Wine Fair" at their next annual meeting in Washington, January, 1863. Letters on the subject may be addressed to N. T. Dennis, Washington, D. C.

AT a sheep shearing in California, at which there were eight competitors, Mr. PECK sheared ten sheep in 6 hours 20 minutes. The test was for quality rather than rapidity of work. He made the fastest time and the best work.

MECHI says that in Essex, Eng., it takes the produce of four or five acres of land to keep a horse in good condition through the year. In the vale of Aylesbury, it takes three acres of good land to keep a cow through the year.

FOR the year ending June 30, 1861, 26,728,103 lbs. of cheese were sent from this country to England last season. Large as this is, it might be doubled and trebled if we paid a little more attention to the quality best suited to English taste.

MR. J. C. TAYLOR's twelfth annual sale of yearling South Down Rams will take place at Holmdel, N. J., September 3d. Mr. T. has for six years purchased some of the best rams at Jonas Webb's annual sale, and has undoubtedly one of the best South Down flocks in the United States.

A SEEDSMAN in England purchased some turnip seed of a farmer that he warranted clean, which turned out to be mixed with cole-seed. The seedsman sued the farmer claiming that the sale of this seed had injured his reputation. The jury gave a verdict for the plaintiff, with \$100 damages.

THE closing sale of JONAS WEBB's South Down sheep (yearlings that were not sold at his great sale last year) came off June 18. Buyers were there from all countries and the prices realized must be considered satisfactory. 487 sheep brought \$28,600. At the sale last year, 97 sheep brought \$54,631. The whole flock, therefore, brought \$83,231!

FAWKES, the inventor of an American steam plow, has come to the conclusion that the traction principle must be given up. Steam plowing can only be done by windlass. We believe this is English experience also. Great hopes were entertained of the success of Fawkes' steam plow on the prairies of the West, but they have not been realized.

THE REV. DR. ROBT. BRECKINRIDGE, of Kentucky, has accepted an invitation to deliver the Annual Address before the N. Y. State Agricultural Society at its Fair in this city. A better selection could not have been made. We need not say that Dr. B. is one of the most eloquent speakers our country can produce, and, what is not so generally known, he is also a good farmer and successful breeder, and has always taken a deep interest in agriculture.

THE Agricultural College bill recently passed by Congress appropriates to each State a quantity of public land equal to 30,000 acres for each Senator and Representative in Congress. In this State, this will amount to 1,050,000 acres. The lands can be sold, and the money used for the support of agricultural colleges and model farms. Our public lands, hitherto, have been worth \$1.25 per acre. But as every actual settler can now, since the passage of the Homestead bill, have a farm of 160 acres for nothing, the colleges may have difficulty in disposing of their land at this rate. It seems clear that few people will buy a farm when they can get one for nothing!

A MIDDLESEX Farmer, who says he makes several hundred acres of hay every year for the London market, writes the *Mark Lane Express* that he has tried five mowing machines, and they were all failures. The grass is heavy, and "laid all ways and close to the ground." It takes about two tons of hay per acre. He pays \$1.50 to 1.75 per acre for mowing the grass, without beer, and it costs \$1.00 per acre for beer for making, carting and stacking. He "pays hay-makers 62½ cents, and carters and rick-men 75 cents per day, with beer."

Inquiries and Answers.

GRASS FOR NAME.—(J. CUPPAGE, of Orillia, C. W.) The grass you send is the *Elymus villosus*, or wild rye.

WORK ON BOTANY.—(T. C.) You cannot get a better work than Wood's Class Book of Botany. You will find it at any bookstore.

POTATOES.—(J. N.) Pull out the weeds by hand. Do not let one go to seed. But after the vines are in bloom do not disturb the ground.

SOWING TIMOTHY AND CLOVER IN THE FALL.—(S. W.) Clover is seldom sown in the autumn. The plants are able to winter-kill. For dry, warm soil, however, it frequently succeeds quite as well sown in the fall as in the spring. Timothy may be sown with the wheat in the fall. In fact, it frequently succeeds best in this way when sown early enough, say the first or second week in September. When sown alone, the fall is generally preferred.

PLASTER FOR WHEAT.—(A Canadian.) Plaster or Gypsum is frequently sown on fall wheat in this section. It may be sown before the last plowing or cultivating, or with the seed, or after the wheat is up, according to convenience. In regard to its effects on the wheat there is some diversity of opinion. As a rule, it does not benefit the wheat materially, but it has almost invariably a good effect on the clover to be sown next spring. It is thought by some to be better to sow it in the fall on the wheat, simply for its effect on the clover, rather than to sow it on the clover itself. Sow from one to two bushels per acre.

BEST PRACTICAL WORK ON FARMING FOR CANADA WEST.—(R. M. M.) We know of no work that will exactly answer your purpose. ALLEN'S American Farm Book is one of the best publications of the kind we have. A good work on practical agriculture is much needed. We would modestly hint that the back volumes of the *Genesee Farmer* for the last six years contain more useful, practical information on agriculture and horticulture than can be found in any book yet published. We can send you the six numbers, handsomely bound, for \$5.

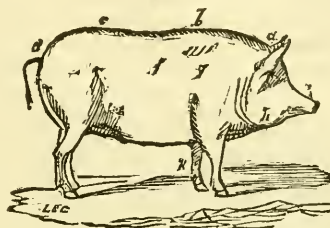
ESTIMATING THE WEIGHT OF HAY BY ADMEASUREMENT.—Will you or some of your correspondents give me a rule for ascertaining the weight of hay in bulk. I have been told that eight feet each way makes a ton. I should be glad to know the truth of the matter.—R. H. EMBRY.

We should be glad if some of our experienced correspondents would answer the above. Many rules are given, but they vary remarkably. One writer in this State says "ten solid yards [270 cubic feet] of timothy will make a ton. Clover will take from 11 to 12 yards to a ton." Another says "timothy and blue grass will take 17 cubic

yards [459 cubic feet] to make a ton; and for clover 512 cubic feet, or eight feet square." One from Vermont says "From 360 to 500 cubic feet will make a ton, according to how much the hay is settled." Another authority in New Jersey says "from 700 to 800 cubic feet are required to make a ton of 2,000 lbs!"

The weight of hay, of course varies considerably according to its character and conditions, the length of time it has been in the stack, or mown, &c. But it cannot vary as much as the above estimates. We think your estimate of 512 cubic feet is not far out of the way for ordinary clover hay, but much too high for timothy. We think 400 cubic feet would be nearer the mark for a well settled mow of good timothy hay. Ascertain the length, breadth and height of the mow; multiply them into each other and divide the product by 400. This would give the weight in tons. For instance, a mow 20 feet long, 20 feet wide and 20 feet high, would contain 8,000 feet. This divided by 400 gives 20 tons as the weight of the hay.

THE POINTS OF A GOOD PIG.—(B. S.) STEVENS, in his *Book of the Farm*, gives the accompanying cut of a good pig:



"The head *a* is small, the face tapering to the snout *i*, which is short and fine; the ears are set on the crown of the head, being broad, thin, long, and so mobile as to indicate quickness of perception: The value of the head, as an article of food, is indicated by the enlargement of the muscle upon the cheek *h*: The neck from *a* to *b* is full; the back from *b* to *c*, broad; the rump from *c* to *d* full and rounp, and the roundness descends to the hams; the ribs *j* are round; the space behind the shoulder at *g* filled up; and so is the flank *e*; the shanks *k* are small and short, and finely tapered."

COVERING STRAWBERRY PLANTS IN THE FALL, &c. &c.—Will tan bark answer to cover strawberry plants in the fall, or what is the best for that purpose. Should any of the leaves be removed with the runners? (*a*.)

What is the best time to cut rail timber? (*b*.)

What is the best and cheapest oil for boots, shoes and harness? (*c*.)

Should lime be plowed or harrowed in shallow? (*d*.) J. W. B., Penn.

(*a*.) Manure is better than tan bark for this purpose. We would not remove the leaves.

(*b*.) The rails will last longer if cut in the summer rather than in the winter.

(*c*.) Neats-foot oil is best for harness. Wash and clean the harness thoroughly before applying the oil.

(*d*.) It makes very little difference. If anything, we should prefer to plow it in shallow.

SLUG ON THE PEAR.—What causes the *pear blight*? I find upon the leaves of my pear trees a sort of slug or snail, of a greenish color, slimy, three-fourths of an inch in length, and in shape resembling a pollywog—only it does not taper quite so pointedly. These creatures devour the life and color of the leaf, giving the tree the appearance of having been scorched by fire. Is this the blight?

and if so, what is the remedy? An answer to the above will confer a great favor upon your subscriber.—J. C. ADAMS, *Seymour, N. Y.*

- It is not the pear blight. This slug has attacked our pear trees here more or less for three or four years. This year it is more numerous and injurious than ever before. The same slug also devours the leaves of the cherry. Dusting the leaves of the tree with lime and ashes is the only remedy that has been resorted to here—except picking them off by hand. They are mostly on the upper sides of the leaves, and therefore it is more easy to dust them with lime or ashes than is usually the case.

LICE ON CHERRY TREES.—(A. W. R., *Glen Aubrey, N. Y.*) Syringe them with tobacco water, or strong soap suds.

HARVESTING BEANS.—What is the best method of harvesting beans and preparing them for market? What can be done with the straw if no sheep are kept on the farm?—S. O.

BONE MILLS.—I would like to know if there are any bone-mills made to work by *horse power*, and where they can be obtained. I have become very much interested in raw bones for manure.—JOHN O'PHAIL, *Dillsburgh, Penn.*

THE WEATHER AND THE CROPS.—In this section the weather has been up to this time (July 25,) exceedingly unfavorable for harvesting the crops. It has rained almost every day for a week or more past. To-day is clear and fine, and farmers are busy cutting their wheat. It was feared that much of the grain would sprout, but as yet comparatively little damage has been sustained.

Much of the hay still remains to be gathered in, and we fear it has been considerably injured.

The crop of wheat is a full average in this section. Though the crop is late, the midge has not done as much damage as we had feared. The grain aphid has again appeared, but we trust the injury will not be great. Some farmers appear to think that it will drive away the midge, but there is little hope of such a result. Spring crops are not as good as could be wished, and the hay crop, owing to the dry weather, will be light. Corn in this section and throughout the eastern states is not very promising, but it is said to be good at the west.

Apples are abundant, and there will be a fair crop of peaches.

The Markets.

OFFICE OF THE GENESSEE FARMER. }
ROCHESTER, N. Y., July 28 1862.

Since our last report wheat has advanced about 10 cents per bushel. Corn and oats are also 2 or 3 cents a bushel higher.

Wheat is about 10 cents per bushel higher than it was at this time last year, and about the same price as it was two years ago. In 1851—2—3, wheat was lower than it has ever been since. In 1851 and 1852 white wheat at this time was quoted in New York at \$1.00@1.05; and red wheat 85c.@1.00. Now white wheat in New York is quoted at \$1.30@1.50; and red \$1.00@1.33. The high prices of 1854—5—6—7, have led us to think that prices since then have been very low, but in reality they are fully up to the average. The trouble for the past two years has been the *high rates of freight*. Though prices have not been so low in New York, yet the cost of getting the grain there has been so great that the price obtained by the western farmer has been ruinously low.

The wool market is excited and prices are higher.

Exchange on England is worth to-day 130. In other words, an English pound, the real value of which is \$4.86, is now worth in New York \$5.72. This is about 20 per cent. above its real value. The result is that grain and all other articles shipped to England

ought to be 20 per cent. higher than if exchange was at its value (say 110.) American wheat in England is now worth within three cents a bushel as much as it was at this time last year, and red wheat is 6 cents *higher* than it was two years ago. White wheat is a trifle lower. We may say, therefore, that the average price of American wheat is as high in London now as it was last year and the year before. But the money that is paid for the wheat here, as compared with the money received for wheat in England, is only worth 80 cents on the dollar. Other things being equal, therefore, a bushel of wheat which was worth 80 cents here last year, or the year before, ought now to bring \$1.00.

The crops in this country are believed to be a full average—equal perhaps to 1860, but as good as last season.

In 1860 the harvest in England was one of the worst on record. The prospects there this year are much better, but still there are complaints of wet weather, and much anxiety is felt for the crop. The *Mark Lane Express* of July 7th, (the last we have received,) says "The past week has brought little if any improvement in the temperature, and Thursday was very wet and unpropitious. Our late expectations of having an early harvest seem likely, therefore, to be disappointed. Accounts are also much less favorable, more especially of the white wheat, which has suffered much from the weather; but the red, being later, looks well where the land is good and highly farmed." The same authority says "the markets were very short of supplies." In our telegraph, we have accounts to July 17. The weather was a little more favorable, but prices were unchanged.

As long as prices remain as they are in England there can be no doubt that, at the present rate of exchange, there is a considerable margin of profit on shipments there, and we think probabilities are in favor of higher prices in this country.

NEW YORK, July 26.—White Wheat—sales at \$1.35@1.40; red Western, \$1.34@1.36; Chicago Spring, \$1.12@1.13; Milwaukee Club, \$1.16@1.22; amber Iowa, \$1.28@1.35. Corn—scarce and firm at 76@82c. Corn—mixed Western, 56@58c. Oats, 47@49c. Butter, 1c@14c. for Ohio, and 14@18c. for St. Cheese—steady at 6@8½c. Hops, 16½@20c. Potatoes—new, 6c@1.00 per bushel. White Beans—of prime quality, scarce, \$2.15@3.00. Canadian peas—in demand at 76@86c.

CHICAGO, July 26.—Wheat 4c. to 5c, higher—sales of No. 1 93@94c. Corn 1@1¼c. better. Sales of mixed at 80@81c.

BUFFALO, July 28.—Sales of white Kentucky Wheat at \$1.15; Milwaukee Club, \$1.09@1.10. Corn, 42@43c. Oats, 39c. Rye, 60@63c. Freight to New York—Wheat, 15c.; Corn, 13c.

CINCINNATI, July 21.—White Wheat, 93@95c.; red, 85@88c. Corn, 27c. Oats, 36c. Rye, 45c.

ST. LOUIS, July 18.—Fall Wheat, 90c.; spring, 55c. Rye, 32@33c. Corn, 31c. Oats, 37@38c.

TORONTO, July 23.—Fall Wheat, 95c@1.05; spring, 80@90c. Barley, 60c. Oats, 46@50c. Peas, 55@60c. Butter—fresh, 15c. Eggs, 12½@13c. per dozen. Potatoes, 80@90c. Hay—new, \$15@20; old, \$25 per ton. Wool, 34@35c.

PHILADELPHIA, July 22.—White Southern Wheat, \$1.35@1.40; red, \$1.25@1.30. Rye, 70c. Corn, 60c. Oats, 42c.

ROCHESTER, July 28.—White Canadian Wheat, \$1.25@1.30; Corn, 48@50c. Rye, 55@60c. Oats, 40c. Barley, 55@65c. Beans, \$1.50@2.00. Hay—new, 6.00@10.00; old, \$10.00@14.14 per ton. Wool, 40@50c. Butter, 9@11c. Eggs, 11@12c. per dozen.

NEW YORK CATTLE MARKET.—The number of beefs marketed this week (July 21 and 22) was 5,552. This is 2,032 head more than last week, and 1,297 more than the average of 1 year. Prices at the close were depressed, though not as much might have been expected from the large supply. First quality 7½@8½c.; medium, 7@7½c.; and ordinary, 6@7½c.

Sheep in good supply. 3½@4c. live weight. One lot of extra fine, that would give 70 lbs. of carcass, brought \$5.50 each.

Lamb—by the carcass, 6c. per lb.

Hogs—live weight, 3½@3¾c. per lb.

LONDON, July 17.—American Wheat—red, \$1.56@1.65; white, \$1.71@1.77. Indian Corn, \$1.02@1.03.

Barley—for grinding, 69@74c.; for distilling, 90@96c.; mulling, 90c.@1.14. Peas—for feeding, \$1.08@1.14; for boiling, \$1.20@1.23. Oats, 67@75c.

Butter—English rolls 22@28c.; Irish and Dutch skirns, 19 21½c.; American, 15@18½c. per lb.

Cheese—English, 12½@15c.; American, 8½@11½c. per lb.

Wool—South Down and Leicester 35@38c. per lb.

American Flour, \$5.70@6.45; extra \$6.72@7.20. [To get the real significance of these figures, we must add from 20 to 30 per cent on account of the high premium on exchange.]

Periodical Phenomena.

EDITORS GENESSEE FARMER:—I send the following records of the leafing and blossoming of plants, and of the first arrival of birds, at this place this year, that your readers may compare them with the same for last year, printed in the August number of the *Genesee Farmer* for 1861, page 260.

GEORGE E. BRACKETT.

Belfast, Maine, 1862.

REGISTER—of the leafing and blossoming of some of our principal plants, made at Belfast, Maine, latitude 44.23° N., longitude 69.5° W., in 1862:

NAMES OF PLANTS.	IN LEAF.	IN BLOSSOM.
Apple tree,	May 20th.	May 29th.
Apple, crab,	May 20th.	May 27th.
Blackberry, upright,	May 19th.	June 19th.
Balm of Gilead,	May 15th.	May 10th.
Cherry, tame,	May 23d.	May 25th.
Cherry, wild,	May 17th.	May 20th.
Currant, red,	May 15th.	May 21st.
Currant, black,	May 17th.	June 1st.
Chokeberry,	May 12th.	June 1st.
Chestnut, Horse,	May 17th.	May 31st.
Elder, pink blossom,	May 15th.	May 24th.
Gooseberry, common,	May 18th.	May 21st.
Gooseberry, English,	May 12th.	May 21st.
Hilac,	May 16th.	June 2d.
ox Eye daisy,	Early,	June 24th.
Pear, wild,	May 15th.	May 18th.
Plum, common,	May 21st.	May 25th.
Peach,	May 17th.	
Rose, common,	May 17th.	June 19th.
Raspberry,	May 18th.	June 16th.
Strawberry,	Earliest.	May 25th.
Spiraea,	May 10th.	
Snowdrop,	May 21st.	
Snowball,	May 20th.	June 18th.
Willow,	May 15th.	May 1st.

RECORD—Of the arrival in spring of our principal birds, made at Belfast, Maine, in 1862:

Bluebird, arrived April 7th.
 Blackbird, " April 17th.
 Barn Swallow, arrived May 4th.
 Bobolink, " May 18th.
 Chimney Swallow " May 18th.
 Dove Swallow, " April 26th.
 Ground Sparrow, " March 31st.
 Humming Bird, " May 25th.
 King Bird, " May 14th.
 Plover, " April 30th.
 Robin Redbreast, " April 1st.
 Wild Goose, " April 16th.
 Yellow Hammer, " April 27th.
 Martin, " April 27th.
 Swamp Robin, " April 27th.
 Cherry Bird, " May 24th.

Genesee Farmer for July.

WE are in receipt of the July number of this pioneer journal of agriculture, now in its twenty-third volume. The publisher is unceasing in his efforts to keep the *Farmers* up to its well-known standard of usefulness. This is a good time to subscribe for the half-year, which will cost only twenty-five cents.—*Lapeer Co. (Mich.) Rep.*

A good number,—readable, sensible, practical, progressive. "Walks and Talks in the Garden" is good. Such articles "take;" they are read, and read with a zest. "Now you look like a Gentleman." Friend HARRIS, I wish you would wander out of the agricultural path more often than you do. That article was entirely in place, but it don't take the blacking to make a gentleman. "A mau's a man, &c."

Cutting hay. You very truly say "It is better to cut too early than too late." Our poor grass and weeds cut early make fine fodder, but if left till late cattle decline to taste it.

Tell friend HOCHSTEIN to continue his "illustration"

articles. A good laugh is better than two poor sermons. Miscellaneous and Ladies Departments, *Multum in parvo!* Limited in space; but who would have them omitted? By using your small but clear type, you give us a monthly amount of matter which is surprising for the size of the magazine. May all who read give due heed, and they cannot fail to profit by it.—GEORGE E. BRACKETT, Belfast, Maine.

THIS old favorite agricultural periodical for July has some notable articles, as "The Value of Straw for Fodder;" "Now you look like a Gentleman;" "Mowing Machines on Small Farms;" "The Potato Bird;" "Cultivation of Indian Corn;" besides articles in the "Horticultural Department," "Ladies Department," &c. A very good and valuable number, which every farmer should read.—*Columbia (Pa.) Spy.*

GRADE OF WHEAT IN CHICAGO.—The following are the grades of wheat adopted by the Chicago Board of Trade for the present season:

Extra club—To be sound, well cleaned, and to consist of pure Club Wheat, weighing not less than sixty pounds to the measured bushel.

Amber Iowa—To be sound, well cleaned, and to comprise all kinds of bright-amber color Spring Wheat, weighing not less than fifty-eight pounds to the measured bushel.

No. 1 Spring—The berry to be plump and well cleaned, weighing not less than fifty-eight pounds to the measured bushel.

No. 2 Spring—To be sound, but not plump or clean enough for No. 1, weighing not less than fifty-five pounds to the measured bushel.

Rejected Spring—Not sound or clean enough for No. 2, weighing not less than fifty pounds; and whenever Wheat shall be so dirty, or have so much other grain mixed with it as to render it, in the judgment of the Inspector, not equal in value to the grade its weight would indicate, it shall be graded according to its value, regardless of weight. And all Wheat or Mixtures of Wheat or other Grain too poor in quality, either by reason of being damaged, dirty, or from mixing for grading, as above, shall be marked no grade, and would recommend that warehouses do not receive such grain.

ADVERTISEMENT.

A FEW short advertisements of interest to farmers—and only such—will be inserted in the *Genesee Farmer* for twenty-five cents a line, or \$2.50 per square, each insertion, payable in advance. To secure insertion, they should be sent in by the 15th of the previous month. The *Farmers* has large lists of subscribers in every State and Territory, and in all the British Provinces. (It has nearly 5000 subscribers in Canada West alone.) There is no better or cheaper medium for advertising everything of general interest to rural residents in all parts of the United States and Canada.

We will also insert a few "Special Notices," if appropriate to our columns, at fifty cents a line.

S. M. PETTENGILL & CO.

No. 37 Park Row, New York, & 6 State St., Boston, are our Agents for the GENESSEE FARMER in those cities, and are authorized to take Advertisements and subscriptions for us at our Lowest Rates.

MOLE PLOWS—By J. DUNHAM, Ithaca, N. Y

3—1f

THE RURAL ANNUAL—For 1866, '67, '68, '69, '70, '71 and '72 will be sent, prepaid to any address for \$1.40.

JOSEPH HARRIS,
 Rochester, N. Y.

A TREATISE ON SORGHUM WINE

AND

RECIPE FOR MANUFACTURING

OF which so much has been said in the agricultural and local papers of the State, is now offered for sale.

I have now matured my plans, by which I will dispose of

Individual, Manufacturers, County and State Rights,

to all who may desire them.

Sorghum Wine has taken the country by surprise; not only on account of its production from this plant, but of its superior quality. Such a product has never been thought of until its invention by the subscriber.

The Wine has been examined at the State Sorghum Convention of Ohio, January 7, 1862, and highly commended. It has been exhibited to wine connoisseurs in the cities of Columbus, Cincinnati, Springfield, Cleveland, New York, Philadelphia, Baltimore and Washington. It has not only surprised them, but received their unqualified commendation. It has been used by Physicians in cases of sickness with entire satisfaction, because of its purity and healthfulness. About one barrel of it has been distributed to dyspeptics, all of whom, except those whose disease had assumed a chronic form, have given harmonious testimony of its beneficial effects, some of whom have been restored to health by the use of a few gallons.

RECOMMENDATIONS.

The following are a few of the many commendations which I could give. The first is from HON. WILLIAM B. HUBBARD, of Columbus, O., President of the United States Agricultural Society, held annually at Washington, D. C.

COLUMBUS, March 31, 1862.

Rev. A. MYERS—Dear Sir: The sample of Sorghum Wine, left by you with me, has been submitted to several good wine judges who have visited my house, and, without exception, has met with decided commendation. Most of them pronounce the aroma, or fragrance, of your Wine that of the Sherry, the minority that of the Madeira. It is certainly a fair Wine, and destined, no doubt, from the ease and cheapness of its manufacture, to become an item of value to the manufacturer and cultivator.

Yours truly,

W. B. HUBBARD.

The following is from Mr. D. M. Cook, of Mansfield, Ohio, Inventor and Patentee of Cook's Portable Evaporator:

MANSFIELD, O., March 15, 1862.

Rev. A. MYERS—Dear Sir: I have used your Wine, made from the Sorghum juice, and I heartily endorse the fact that your Sorghum Wine is most delicious, and that it would be difficult to distinguish it from the best Madeira Wine.

Hoping that you will not fail to introduce your work on Sorghum, as also your Wine to the public benefit, I am truly your most obedient,

D. M. COOK.

This Wine is a Mild Stimulant and NOT Intoxicating

1. AN INDIVIDUAL RIGHT embraces the privilege to manufacture all an individual desires for the use of his own family. Price, \$1.00.

2. A MANUFACTURER'S RIGHT embraces the privilege to manufacture all a manufacturer of Sorghum Syrup can while he is manufacturing Syrup, from the washings and skimmings and inferior Syrup for his own use and for sale. Price from \$5.00 to \$25.

3. A TOWNSHIP, COUNTY or STATE RIGHT embraces the exclusive privilege of manufacturing and selling Recipes in said limits. For price, etc., address subscriber.

REFERENCES.

As a guarantee of honesty and ability to perform all I agree, I refer to the President and Professors of Wittenberg College, Springfield, O.; any of the citizens of this city, or Bucyrus, O., and all the English Lutheran Ministers in the State of Ohio, especially those of the Miami and Wittenberg Synods.

Persons desiring the use of this recipe, and indicating the privilege they desire, and sending the amount to me by mail, or, when the sum exceeds \$5, by express or draft, will receive by return mail a Certificate of Right, and about the 1st of September will receive the Recipe.

Every subscriber will be required to sign an Obligation of Secrecy, which they will receive with the Certificate of Right, to be returned to me when signed. This is required to secure to me my right as inventor. Honest men will not hesitate to comply, and with dishonest ones I wish to have no dealings.

Persons well known in any community making up a club of ten or more will be suitably rewarded. Address

A. MYERS, Springfield, Ohio.

EMPLOYMENT!—Agents wanted in every county, to sell the best (Two-threaded) Sewing Machine ever offered to the public. Liberal salary, or commission allowed, with expenses. Circular sent, by addressing with stamp.

Aug.—24 ISAAC HALE, Jr., & CO., Newburyport, Mass.

GENESEE VALLEY NURSERIES

ROCHESTER, N. Y.

FROST & CO. offer an immense stock of Trees and Plants for planting during the Autumn of 1862 and coming Spring, which will be supplied at LOW RATES and on favorable terms.

Their Nurseries occupy at present upward of *Three Hundred Acres*, and contain an extensive assortment of FRUIT TREES, both DWARF and STANDARD, SMALL FRUITS, etc., as well as a great stock of EVERGREENS, DECIDUOUS TREES, ROSES, etc., etc.

Our Descriptive Catalogues Nos. 1, 2, 3, and 5, of Fruit Ornamental Trees, Shrubs, etc., Green House Plants and Flower Bulbs, and also No. 4, their Wholesale List, are sent free on application.

Parties who desire to plant in large or small quantities, should apply to them before purchasing. All communications promptly noticed. Aug.—2

THE NEW NATIONAL TAX LAW.

GET THE BEST.

LARGE TYPE.

WITH PARAGRAPH HEAD-LINES AND INDEX.

BY far the best and most satisfactory edition offered is the CITIZEN'S STANDARD (DIME) EDITION,

published by BEADLE & Co., New York. It has the preference over all others in business circles. It is the last revised and

AUTHENTICATED COPY.

AGENTS WANTED

to sell this edition. It has already had an immense sale in great seaboard cities, and agents have made from ten to fifty dollars per day in its sale. Everybody must have a copy—even a manufacturer, every merchant, every mechanic and every farmer. Compare it with other editions and none other will be taken. Sample copies sent, post-paid, on receipt of ten cents. Address or call upon

BEADLE & CO., Publishers, New York

CHOICE GRAPES AND SMALL FRUIT

FROST & CO., Proprietors of the GENESEE VALLEY NURSERIES, Rochester, N. Y., offer for sale an immense quantity choice sets of Small Fruits, &c.

Their stock of the new sorts of NATIVE GRAPEs, both of two and years old, Delaware, Diana, Concord, Cuyahoga, Hartford Prolific, Rebecca, etc., is very large, fine and well grown as well as FOREIGN SORTS.

Also, CURRANTS, GOOSEBERRIES, STRAWBERRIES, RASPBERRIES, BLACKBERRIES, &c. Plants furnished large and small quantities at LOW PRICES. Descriptive and Priced Catalogues furnished on application. Aug.—2

RECEIVER'S SALE OF NURSERY STOCK

THE undersigned, appointed Receiver of the nursery stock of the late firm of Gregory & Goldsmith, now offers the same for sale to Dealers and Nurserymen. The stock consists of 40,000 Dwarf Pears, 10,000 Standards, 20,000 Cherries, 12, Apple trees, and a large variety of Evergreens and Ornamental Shrubs, on the late farm of James H. Gregory, adjoining nursery of Ellwanger & Barry. The property is desirable and will be sold low. Application should be made at once to

PATRICK BARRY, Receiver, or his

Agent, JAMES H. GREGORY

Dated August 1, 1862.—3t

FOR SEWING MACHINES.

JONAS BROOK & BROTHERS'

PRIZE MEDAL SPOOL COTTON,

200 or 500 yard spools, White, Black, and Colored.

FOR MACHINES, use BROOK'S PATENT GLACE for upper thread, and BROOK'S SIX COIL RED TICKET for under thread. Sold by all first class dealers in city and country; and in cases of 100 dozen each, assorted numbers, by WM. HENRY SMITH, Sole Agent, 36 Vesey street, New York. Ja—17

TREES AND PLANTS AT LOW PRICE

FROST & CO.'S WHOLESALE CATALOGUE, No. 4, Fall of 1862, representing Nursery Stock grown from upward of *Three Hundred Acres of Land*, is now ready for distribution.

GENESEE VALLEY NURSERIES,

Aug.—2t

Rochester, N. Y.

GENUINE STRAWBERRY PLANTS—Of the Triomphe de Gand, Ward's Favorite, Austin, Wilson, Hovey and other choice varieties, for sale by

E. WILLIAMS,

Send for Circular. West Bloomfield, N. J.

CIDER PRESS SCREWS—5 feet long, 4 inches diameter.—These powerful Screws bring out a third more juice than portable presses. Send for a circular. Made by

July—2t* L. M. ARNOLD, Poughkeepsie (N. Y.) Foundry.

Grover & Baker's

CELEBRATED NOISELESS SEWING MACHINES.

FOR

Family and Manufacturing Use,
495 BROADWAY, NEW YORK.

V. C. GOODWIN, 92 State St., Rochester, N. Y.

Agencies in all the principal Cities and Towns in the United States.

THE GROVER & BAKER S. M. CO.

NOW OFFER IN ADDITION TO THEIR

SPLENDID STOCK OF MACHINES,
MAKING THE CELEBRATED

GROVER & BAKER STITCH,

NEW AND SUPERIOR

Shuttle, or "Lock-Stitch" Machines,

ADAPTED to all varieties of sewing. Much more Simple, Durable, Noiseless and Perfect than any other "lock-stitch" machines heretofore in use.

The Grover & Baker machines have taken the first premiums, over all competition, at every State Fair where they were exhibited last year.

BOARDMAN, GRAY & CO.,

PIANOS,

THE BEST AND MOST DURABLE.

Our large, elegant and superior Pianos of 7 and 7½ Octaves at low price for Cash.

PIANOS FOR SMALL PARLORS,

5½ and 7 Octaves, elegant and durable.

All our Pianos have the

Insulated Iron Rim,

Giving strength and durability, and requiring less than half the usual amount of tuning.

ROSE-WOOD YOUNG AMERICA PIANOS,

\$150,

Warranted to prove good and give perfect satisfaction, or no sale.

SEND FOR DESCRIPTIVE CATALOGUES.

BOARDMAN, GRAY & CO., Manufacturers,

June—31

ALBANY, N. Y.

Back Volumes of the Genesee Farmer.

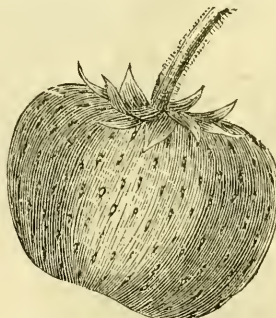
WE have the back numbers of the *Genesee Farmer*, handsomely bound, for the years 1846, 1847, 1848, 1849, 1853, 1855, 1856, 1857, 1858, 1859, 1860 and 1861. They will be sent free to any address for \$1.00 each. The last six volumes, from 1856 to 1861 inclusive, handsomely bound, will be sent free by express, or by mail postage paid, for \$5.00. Address

JOSEPH HARRIS,

Publisher and Proprietor of the *Genesee Farmer*,
Rochester, N. Y.

WANTED—By a practical Vintner, Gardener, Florist and Nurseryman, thoroughly acquainted with the Culture of the Grape, and a practical knowledge of the Nursery business, &c., &c., a Situation as Superintendent, or to take charge of a Vineyard on shares. Can give No. 1 references as to ability and character. Apply at the office of the *Genesee Farmer*, or address A. B. C., Versailles, Woodford Co., Ky., lock-box 131. 7-31

Great Austin Shaker Strawberry.



THE berries of this remarkable variety are much larger than any other kind cultivated in this country. It produces extraordinary crops, and the fruit is very attractive, being of a fine scarlet color. The Austin was exhibited at the office of the *American Agriculturist* last year, weighing one ounce. Nearly 1,000 boxes were sent from Water-vleit last year, a distance of 160 miles, and sold to Taylor, corner Broadway and Franklin streets, N. Y., for 30 cents per quart, proving the Austin to be one of the most profitable market berries in cultivation.

Our stock of plants is very large and fine, at the following rates: 30 plants, \$1.00; per hundred, \$2.00; per thousand, \$15.00.

We commence delivering plants on the first of August, in rotation as ordered. Address either

CHAUNCEY MILLER, Albany, N. Y., Shaker Trustee, or
WM. S. CARPENTER, 329 Greenwich Street, New York.

Books for Farmers and Fruit Growers.

THE following works on Agriculture, Horticulture, &c., may be obtained at the Office of the *GENESSEE FARMER*:

American Florist's Guide..	75	Quimby's Mysteries of Bee-	
Bright on Grape Culture..	50	keeping Explained.....	1 60
Brownie's Bird Fancier..	25	50 Rabbit Fancier.....	25 & 50
Cole's Am. Fruit Book....	50	Richardson on the Hog....	25
Dana's Muck Manual.....	1 00	Do. Domestic Fowls.....	25
Do. Prize Essay on Ma-		Do. Pests of the Farm..	25
nures	25	Do. on the Dog.....	25
Everybody's Lawyer..\$1		25 Rural Annual and Hort.	
Every Lady her own Flow-		Directory for 1861.....	25
er Gardener.....	50	(First five vols. do., 1856-7-	
Farm Drainage, (H. F.		8-9 and 60, sent for.....	1 60
French).....	1 00	Rodgers' Scientific Agricul-	
Genesee Farmer (bound		ture.....	75
volumes) each.....	1 00	Rural Poetry of the En-	
Liebig's Animal Chemistry	25	glish Language, (a beau-	
Liebig on Food, &c.....	25	tiful book for a present)..	3 00
Do. Relations of Chemistry		Smith's Landscape Gard'g	1 25
to Agriculture.....	25	skillful Housewife.....	25
Miner's Bee-keeper's Man-		The Rose Culturist.....	25 & 50
ual	1 00	The Horse and his Diseases	1 00
Modern Cookery, by Miss		Wilson on Flax.....	25
Acton and Mrs. S. J. Hale	1 00	Yount on the Horse.....	1 25
Nash's Practical Horse Far-		Young Housekeeper.....	25
rier.....	50	Dairymaid's Directory...	25

Any of the above named works will be forwarded by mail post-paid, on receipt of the price specified.

Address

JOSEPH HARRIS, Rochester, N. Y.

The Original Howe Sewing Machine!

RECENT and important improvements having been put to this Machine renders it now the most perfect before the public, and persons at a distance can order a Machine with a guarantee of its prompt and safe delivery, and that they will be able to manage it to their entire satisfaction. No more breaking needles! No more missing stitches! No trouble in making any garment, however delicate or heavy, on the same Machine, either in cambric, cloth, or leather. No person should think of purchasing a Sewing Machine without first seeing this—the latest and greatest triumph of the original inventor of the Sewing Machine.

Send for a Descriptive Catalogue of styles and prices. A few responsible Agents would be dealt with liberally. Address
THE HOWE SEWING MACHINES,
July, 1862.—21t 437 Broadway, New York.

WOOD CUTS FOR SALE.

WE will sell Stereotypes of the Wood Cuts used in the *Genesee Farmer* and *Rural Annual and Horticultural Directory*. A book containing impressions of over Seven Hundred of these cuts will be sent to those wishing to purchase on the receipt of 50 cents. The book contains an index, showing where descriptions of the cuts will be found.

Address

JOSEPH HARRIS, ROCHESTER, N. Y.

Thoroughbred Devon Cattle

FOR SALE—Of both sexes, and of various ages. For pedigrees and full particulars address me at Victory, Cayuga Co. N. Y. July—31 GEO. B. LOCKWOOD,



Universal Clothes Wringer.

It is the ORIGINAL and only GENUINE and RELIABLE WRINGER before the Public.

IT SURPASSES ALL OTHERS IN

Strength of Frame!

Capacity for Pressure!

Power of Action!

WE CHALLENGE THE WORLD!

We Defy all Competition!

WE WARRANT EACH ONE IN EVERY PARTICULAR.

WE have the highest testimonials certifying to its great value, both in the saving of labor and materials, as well as its perfect adaptation to the use to which it is intended. These notices, however, can not be inserted here. We only ask that the public look at the facts—try our Wringer, and judge for themselves. We ask none to buy without giving it a thorough test, for which abundant opportunity will be given to all.

CANVASSERS WANTED.

To men who have had experience as canvassers, or any who would like to engage in the sale of this truly valuable invention, liberal inducements will be offered and good territory given them (they paying nothing for the Patent Right) in which they shall have the exclusive sale.

This Wringer is made by

The Metropolitan Washing Machine Company,

Under the following patents:

The Improved Patent Cog Wheel Regulator—

It saves friction of the clothes, and prevents the rolls from wearing.

The new Patent Method for Fastening the Roll to the Shaft—

Never blacks the clothes.

Dickerman's Patent Clasp Frame, for fastening to the tub—

Can not work loose from its place.

Lyman's Patent Adjustable Gauge, for different sized tubs—

Thick or thin, straight, slanting, or circular.

GOODYEAR'S PATENT (of which they are the exclusive owners)

for the right to make, sell and use Vulcanized India Rubber

Rolls or Covered Rolls for Washing, Wringing, or Starching

Machines.

Any one making, selling or using any Wringer (the user as well as the maker), the rolls of which were not purchased of them, and a license obtained to sell and use the same, are infringing on their rights, and will at once be prosecuted according to law.

After an expensive litigation in the UNITED STATES COURTS, the suits are terminated and injunctions issued against the infringers. The parties prosecuted have settled for past infringements and are now acting under licenses, which (with their supply of India Rubber) they obtained from them with the right to use it for other Wringers (they paying a tariff on all sold), but under the most careful restrictions as to terms and prices, both wholesale and retail.

All licensed parties will have a certificate, showing their rights and authority. The public should beware of all canvassers for Wringers who can not produce such certificate—they are bogus.

Descriptive Circulars furnished by

JULIUS IVES & CO., GENERAL AGENTS,

July, 1862.—1y. 845 Broadway, New York.

! Sold by Special Canvassers throughout the land.

Half Volume of the Genesee Farmer.

SPECIAL PRIZES.

A HALF volume of the GENESSEE FARMER commences with the next number. It will be sent to any address for *twenty-five cents*, and the following Premiums will be paid to all who send us subscribers:

BOOK PREMIUMS.

1. To any person sending us the names of *two* subscribers for the coming half volume of the *Genesee Farmer* at 25 cents each, we will send, prepaid by return mail, a copy of The Young Housekeeper and Dairymaid's Directory, by Mrs. ELIZA A. CALL or one copy of the *Rural Annual and Horticultural Directory* for 1860 or 1861.

2. To any person sending us *four* subscribers to the half volume at 25 cents each, we will send, prepaid by return mail, two copies of the *Rural Annual and Horticultural Directory* for any years that may be wished.

3. To any person sending us *six* subscribers to the half volume, at 25 cents each, we will send, prepaid by return mail, a copy of Liebig's Animal Chemistry, or *three* volumes of the *Rural Annual*.

4. To any person sending us *eight* subscribers to the half volume, at 25 cents each, we will send, prepaid, by return mail, one copy of the Farmers' Practical Horse Farrier. Price, 50 cents.

5. To any person sending us *ten* subscribers to the half volume, at 25 cents each, we will send, prepaid by return mail, one copy of the *Genesee Farmer* for 1856, nicely bound in stiff paper covers. Price, 75 cents.

6. To any person sending us *twelve* subscribers to the half volume, at 25 cents each, we will send, prepaid by return mail, a copy of Rogers' Scientific Agriculture, or a bound volume of the *Genesee Farmer* for 1860 or 1861. Price of the latter, \$1.

7. To any person sending us *fourteen* subscribers at 25 cents each, we will send, prepaid by return mail, a copy of Mrs. S. J. HALE'S Modern Cookery. Price, \$1.00.

8. To any person sending us *sixteen* subscribers, at 25 cents each, we will send, prepaid by return mail, a copy of Every body's Lawyer, or a copy of The Horse and his Diseases. Price \$1.25.

9. To any person sending us *forty* subscribers at 25 cents each, we will send, prepaid by return mail, a copy of The Rural Poetry of the English Language. Price, \$3.00.

GRAPE VINE PREMIUMS.

To any person sending us *ten* subscribers to the half volume at 25 cents each, we will forward, prepaid by mail, to any part of the United States one Delaware grape vine.

For *sixteen* subscribers, *two* Delaware grape vines.

For *twenty-four* subscribers, *three* Delaware grape vines.

For *thirty* subscribers, *four* Delaware grape vines.

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The grape vines will be sent in time for planting next fall.

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Money may be sent at the risk of the Publisher

Address

JOSEPH HARRIS,

PUBLISHER AND PROPRIETOR OF THE GENESSEE FARMER,

June 1, 1862.

ROCHESTER, N. Y.



SOWING WHEAT.

THE chief labor on many farms this month will be sowing wheat.

A gentleman of this city, who takes delight in exaggerated pictures of the evils resulting from the war, remarked that "farmers felt so uncertain about the future that they were not going to sow any wheat this fall!" So far from this being the case, we believe that more wheat will be sown in this section than for many years past. The midge, which made such fearful havoc in our wheat fields in 1856-7-8-9 and '60, has done comparatively little damage for the last two harvests, and farmers are beginning to believe that we shall again be able to raise white wheat of as good quality as in days of yore.

In the February number of the *Genesee Farmer* for 1857, will be found a long article headed, "Shall we have to abandon Wheat Growing in Western New York?" At that time many farmers thought that we must give up wheat culture. We took the opposite ground and contended that there was no necessity for such a course. At two consecutive meetings of the Farmers' Club of Monroe county the subject discussed was, "What substitutes for the wheat crop can be adopted with the most profit in this county?" We expressed the opinion that we could still raise wheat; that the midge was no new thing; that it had, at times, committed great ravages in other countries, but had been overcome, and that we too could, by properly cultivating and enriching the soil, sowing early, and of early varieties, soon lessen the ravages of the midge and be able in a few years to raise as good wheat as ever. Our prediction has come true. The midge has not disappeared, but we have been enabled to get crops sufficiently early to escape material injury.

A day or two since we were on the farm of JOHN JOHNSTON, of Geneva, N. Y., the noble old farmer of underdraining celebrity. He remarked: "The

midge never did me much damage." For thirty years he has fed out large quantities of oil cake, corn, &c., to cattle and sheep on his farm. He has used more or less lime and any quantity of plaster. He has raised immense crops of clover and made it into hay and fed it out to sheep. In this way he has made his land rich. At the same time he has tile-drained every field on the farm, or we might say every rod. He has laid over *fifty miles* of underdraining tile! His land is dry, rich and well cultivated, and "the midge never did him much damage." No wonder that he is the great American apostle of High Farming.

The midge has taught us a great lesson—one which could not have been taught us so effectually in any other way—*we must farm better*. We must sow less land with grain; raise more clover; keep more stock; make more and richer manure. What land we sow to wheat must be well prepared and the seed put in early. It has taught us that it is much better to raise a thousand bushels of wheat from thirty acres than from sixty. We have learned that if the midge takes five bushels of wheat from a field that would yield 35 bushels to the acre, the loss is less than if it takes the *same quantity* from a crop that would yield only 15 bushels per acre. The *proportion* of loss is much greater in the one case than in the other. In the one case, for every hundred bushels we obtain, 50 bushels has been destroyed by the midge; in the other, only 16 bushels. And this is assuming that the midge does as much damage on the good land as on the poor, which is by no means the case. Our motto must be, "sow only as much land to wheat as can be made rich and put in early and in good condition." This is what we have advocated for years, and experience has demonstrated its correctness.

On heavy land, we have not yet been able to dispense with summer-fallowing. JOHN JOHNSTON, rich as he has made his land, is yet in the habit of

summer-fallowing more or less every year. His practice has been to top-dress his clover land in the fall and the next spring to plow it up, and prepare the land for wheat by plowing it twice more, with repeated harrowings, rolling, &c. In other words, he manures the land in the fall and then gives it a good old-fashioned summer-fallow.

Latterly, since his land has been brought into such high condition, he occasionally takes off a crop of barley and sows wheat after it. In this case, as soon as the barley is off he plows it *as shallow* as possible to start the barley which may have been shed, seeds of weeds, &c. Then as soon as they are started, plow them under and sow wheat. On lighter soils the wheel cultivator may be used to start the seeds, &c.

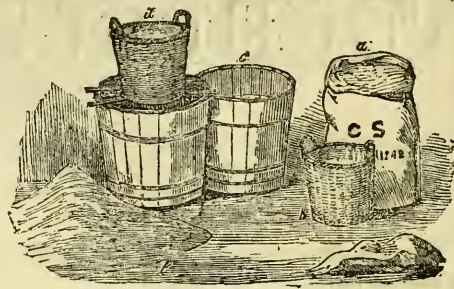
Wheat is usually earlier on a summer-fallow than after barley or oats—and this in midge times is a very important point.

In England, wheat is almost invariably sown on a clover sod, one or two years old, at one plowing. The land is turned over in shallow, narrow furrows, and the wheat sown immediately. Some farmers sow every day close up to the plow. We sow so much earlier in this country than they do in England, and the grass has, therefore, so much better chance to grow, that we have thought this method could not often be practiced with advantage, but we find that many good farmers are adopting it. The great point is to get the grass covered completely. In some parts of England a heavy roller, much resembling a wheel, and not more than an inch wide at the point, is used to run along the furrows after the plow and press in the grass. We once saw it in use on Mr. WILLIAM BENNETT's celebrated farm in Bedfordshire, and he assured us that on his very light sandy soil it was of the greatest value, not only for pressing in the grass but also for consolidating the land—it being well known that the great difficulty in growing wheat on such light land is to get it firm enough.

Where there is danger of smut, seed wheat should always be "pickled." The spores of the smut adhere to the grain, and when this is sown they are taken into the circulation of the wheat plant and affect the grain at the next harvest. To prevent this, we must adopt some method of killing the spores of the smut, or more properly "bunt."

The method most commonly adopted is as follows: Let a tub or half barrel, as *e*, in the accompanying engraving, be placed to receive a quantity of chamber-lye, two or three weeks before it is needed, and as soon as the ammonia is perceived

pretty strong it is ready for use. If so strong that it smarts the eye, it should be diluted with water. This is better than to use it fresh. Let two baskets, *b* and *d*, be provided. Pour the wheat into the basket *b* from the sack *a*, and dip the basket of wheat into the tub of lye *c* as far down as con-



MODE OF PICKLING WHEAT TO PREVENT SMUT.

pletely to cover the wheat. After remaining in the liquid for a few seconds, lift up the basket, let the surplus liquid run out of it, and then place it upon the drainer *e*, on the empty tub *f*, to drip still more liquid, till the empty basket is filled with wheat and dipped in the tub. Now empty the basket *d* on to a clean floor; and as every basketful is emptied, riddle a little slaked lime on to the wheat. Let the heap be repeatedly turned over till every kernel is coated with lime.

The philosophy of this operation is this: The spores of the smut contain oil, and the ammonia of the lye unites with this oil and destroys the spore. The lime dries the wheat and also assists in killing the spores.

Many other substances will kill the spores and thus prevent injury from smut. The best of these is blue vitriol (sulphate of copper). For each bushel of wheat dissolve three or four ounces of vitriol in a quart of hot water, and when cool sprinkle the wheat with it, turning the wheat over on the floor till every grain is moistened with the vitriol. Lime must not be used in this case, as it neutralizes the vitriol.

Every farmer knows how to sow wheat after some fashion, but comparatively few know how to sow properly. The great error in sowing is to let the hand fall as soon as it leaves the bag containing the seed. Instead of this, the hand should be thrown back on a level with the elbow, and if a little higher it will be all the better. Do not throw the seed too high. The hand should not be raised higher than at the starting point. STEPHENS, in his *Book of the Farm*, has the following remark on the subject:

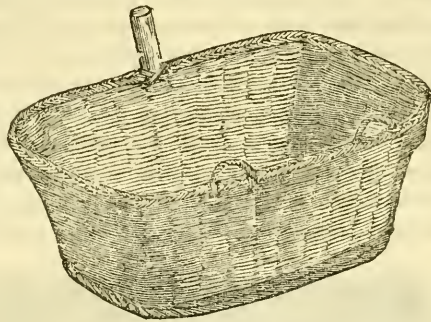
The most convenient form of sowing wheat is of the semi-spheroid, made of linen sheeting, having an opening large enough along one side of the mouth to allow the head and right arm of a sower to pass through, and the portion passed under the left arm upon his left shoulder. On distending its mouth with both hands, and on receiving the seed into it, the superfluous portion of the sheet is drawn tight over the left arm, and gathered under to the left hand; by which it is firmly held, and the load of grain is thus securely supported. That part of the sheet which passes over the left arm under across the back, and under the right arm. The right arm, which throws the seed, finds easy access to the grain from the open side of the mouth of the sheet, between the left hand and the breast of the sower. A square sheet, knotted together in one of its corners, and put on in a similar manner, is sometimes used as a sowing-sheet; but one edged and sewed of the proper shape, and kept for the purpose, is a much more convenient article. Linen sheeting makes an excellent material for a sowing-sheet, and, when washed at the end of the season, will last many years. The difficult point is to make the sowing-sheet fit the sower on the top of the left shoulder, where the greater part of the weight of the corn rests; and, in attempting this,



THE METHOD OF PUTTING ON THE SOWING-SHEET.

The principal thing to be considered is, to make the sheet which goes over the shoulder, broad enough, to make the slope of the top of the shoulder from the neck downwards. The gatherings of the cloth on each side of the shoulder-top should be as neatly fastened as is a shirt, and a couple of tapes should be drawn through a slot-hem, to be tied tight in the middle of the sheet across the breast. The accompanying figure shows very correctly the manner in which a well-made sheet should be put on and

fastened by girths, fastened to the two loops shown on the rim of the basket, by passing the girth from the left-hand loop over the left shoulder, behind the back to the other loop—or from one loop to the other, round the back of the neck; and the left hand holds the basket steady, by the wooden stand on the other side of the rim.



THE ENGLISH SOWING BASKET.

"In sowing, the sower walks on the third and fourth furrow-slices from the open-furrow, which he keeps on his right hand. Taking as much seed as he can grasp in his right hand, he stretches his arm out and a little back, with the clenched fingers looking forward, and the left foot making an advance of a moderate step. When the arm has attained its most backward position the seed is begun to be cast, with a quick and forcible thrust of the hand forward. At the first instant of the forward motion, the fore-finger and thumb are a little relaxed, by which some of the seeds drop upon the furrow-brow and in the open-furrow; and while still further relaxing the fingers gradually, the back of the hand is so also turned upward, until the arm becomes stretched before the sower, by which time the fingers are all thrown open, with the back of the spread hand uppermost. The motion of the arm being always in full swing, the grain, as it leaves the hand, and partaking of its momentum, receives such an impetus as to be projected forward in the form of a figure corresponding to the sweep made by the hand. The forward motion of the hand is accompanied by a corresponding forward advance of the right foot, which is planted on the ground the moment the hand casts forward the bulk of the seed."

High casting is a common error with young sowers. The hand should be kept low, the arm stretched out, and the seed made to fly off in a curve in front, by a sharp turn up of the hand, and a free opening of the fingers near the end of that action, the nearest parts of the seed falling within two paces of the sower.

In regard to the quantity of seed per acre, we think two bushels or two bushels and a half none too much. Thin seeding, other things being equal, is apt to make the crop later.

Do not forget to clean out the dead-furrows, and to run furrows through any low spots to carry off the water.

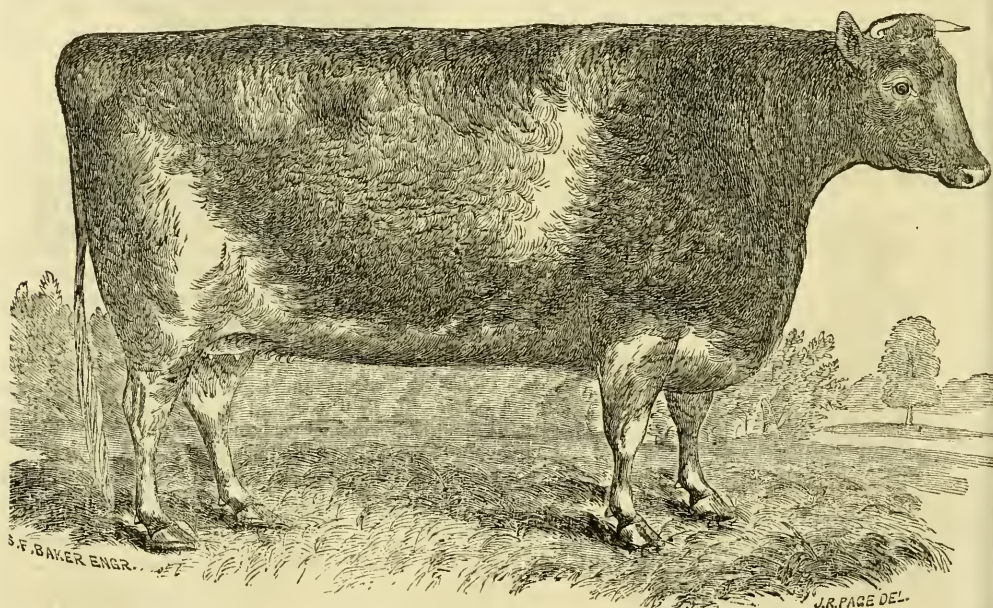
A NOBLE HERD AND A NOBLE FARM.

ABOUT the middle of August we had the pleasure of spending a few hours on the farm of JAMES O. SHELTON, Esq., of Geneva, N. Y.

The farm is on the western slope of Seneca Lake. The house is situated on high ground, in the center of the farm, and commands a fine view of the lake and of the fertile farms on the opposite shore. The grounds surrounding the house are such as are rarely seen in this country. Noble elms, locusts and other handsome trees give to the scene the appearance of an English park. The farm consists of about 300 acres; only 45 acres of which are under the plow. The crops on them, however, are excellent, and clearly show that if we would adopt

and have never been re-seeded, they look more like a *clover* field than an old meadow. At this time (August 14) they are one mass of clover blossoms, while underneath and amongst them is a thick growth of timothy and other grasses. We would not ask for better hay than this second crop will make. But why is there so much clover? Botanists tell us that red clover is a biennial and will run out on ordinary soils at the end of two years, or at most, even on limestone land, at the end of three years. No seed has here been sown for years, and yet it abounds.

In our experiments on an old meadow last year with various artificial fertilizers, superphosphate of lime brought in the clover; and the present year



A SHORT-HORN COW, BRED BY JAMES O. SHELTON, ESQ.

the motto, "more grass and less grain," our average yield would be greatly increased.

Mr. SHELTON has now 80 head of cattle, 12 horses and 200 sheep. This is heavy stocking; but the condition of the animals shows that they have an abundance of the good things of this life. The first year after Mr. S. purchased the farm, he cut 76 loads of hay; this year, from the same number of acres, he cut and has now mowed away 335 loads! In addition to this, he has many acres from which he will in a few days cut a second crop of very heavy and superior hay. He cuts early, while the clover is in blossom, believing that the hay is of superior quality. We have never seen finer grass, and one thing particularly surprised us: though the meadows have been down many years,

there is still more of it on the land having superphosphate last year; there is also a little where plaster was sown last year, while there is none on the rest of the field. Mr. SHELTON top-dresses his meadows with composted manure, plaster, &c., and it may be that to this we must ascribe the clover. Certain it is, that to this is due his magnificent crops of grass and his luxurious pastures. Nearly all his manure,—and, keeping such a large stock, he has a large quantity of it,—is applied to his grass land in the fall.

The system of rotation adopted by Mr. S. is as follows: Break up a grass field and plant corn; second year, oats; followed by fall wheat. With the wheat timothy seed is sown, and the next spring two or three quarts of clover seed per acre is sown. For

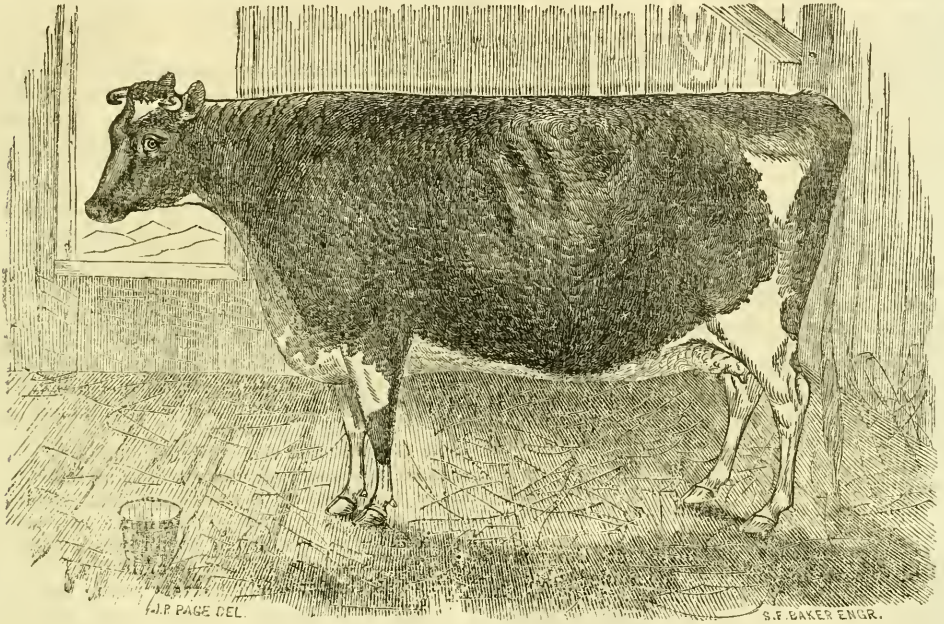
the benefit of the grass, about two bushels of salt per acre is sown on the wheat in the fall. Mr. S. is satisfied that salt has an excellent effect on the grass, and especially in insuring a good "take."

About eight acres of white sugar beets are raised every year. They do not yield so well as mangel wurzel, but are more nutritious, affording richer milk. For ewes with lambs early in the spring they are excellent.

Mr. SHELTON's herd of Shorthorn cattle, numbering now sixty head, is unsurpassed in this country, if in England. Look at them as they quietly crop the rich grass and bask beneath the umbrageous elms. Every one of them has a pedigree long as an Earl, and quite as illustrious! Of Alderneys,

especially considering its richness. It has always been a matter of surprise to us that wealthy gentlemen in the neighborhood of our large cities, who keep a cow for their own use, do not more generally keep an Alderney.

Mr. SHELTON has a noble flock of thorough-bred South Down sheep. Three years ago he met with a great loss. His sheep were in a barn which took fire, and some hundred and fifty head of the choicest South Down sheep perished in the flames. Since then, Mr. S. has made several importations, and also purchased largely from L. G. MORRIS and other celebrated breeders, and has now one of the largest and best flocks in America. He is in the habit of purchasing ewes of the common sheep of



AN ALDERNEY COW, BRED BY JAMES O. SHELTON, ESQ.

Mr. S. has a dozen or more beautiful animals. For rich milk nothing equals an Alderney. We had supposed that they gave but a small quantity, but Mr. S. says he has some that give 20 quarts a day. This for such small animals is a large quantity,

the country and crossing them with South Down bucks, and in this way gets excellent lambs for the butcher. He finds the practice quite profitable. He regards the South Down as the best of all the English sheep for this purpose.

SHROPSHIRE DOWN SHEEP.—The *Maine Farmer* says Capt. BRADFORD, of Winthrop, Me., has received three beautiful Shropshire Down sheep from the importation of the late Mr. WINANS, of Baltimore. The importation was made through Mr. SUTTON, of Maryland, who, "after examining the best flocks of England, made choice of the Shropshires as the best." The editor of the *Farmer* says, "with the exception of a flock imported by

GEO. MILLER, of Markham, C. W., we know of no others this side of the Atlantic." Mr. LORILLARD, of New York, imported some most magnificent Shropshire Downs three or four years ago. We believe this was the first importation into this country. Indeed, it is but a very few years since the Shropshire Down sheep attracted any general attention in England. They are now admitted to be a most useful breed of sheep.

NOVELTIES AT THE GREAT ENGLISH EXHIBITION.

THE *Irish Farmer's Gazette*, one of the very best of our foreign exchanges, mentions the following among the new implements at the recent Fair of the Royal Agricultural Society :

A patent combined harrow, seed drill, and horse hoe. This implement is supported on wheels, and besides its onward, maintains a lateral or zigzag motion when at work, pulverizing the soil thoroughly, and the tines can be either let down or shortened at pleasure. It is furnished with a seed box and swing harrow, to follow in the tracks of the wheels, so as to obliterate the marks. Altogether, it is an excellent implement, and the wonder to us is that it has not obtained more general use than it has ; for though it it stated to be an entirely new implement, a similar one was exhibited in 1855 at the Royal Show at Chester. It is entered in the official catalogue as a "Transversal seed harrow, invented and manufactured by the exhibitor ; a wheeled harrow to work in a zigzag direction across the furrows, thereby ensuring the covering of the seeds with half the usual labour." We were particularly pleased with its action on that occasion, but lost sight of it ever since.

Mr. Levi Lemon Sovereign, of Canada, exhibited several combined implements of his own invention ; particularly a combined plough, drill, and harrow, which completes the whole process of ploughing, ribbing, and depositing the seed, and harrowing simultaneously.

J. Gray & Co., Udingston, had all their ploughs and similar implements furnished with solid iron handles, instead of wooden ones, which certainly is a great improvement ; the wooden ones so generally rotting or getting loose in the sockets.

A combined double mould-board plough was exhibited, which had a new and very simple mode of regulating the width of the mould-boards without leaving the stilts, which consisted of a spring slip moving up and down on a central rod, and much quicker in action than the usual one of a screw.

The Busby Agricultural Implement Company exhibited a new implement—a combined plough and land presser, the invention of T. and J. G. Harrison, consisting of a plough, to which a presser is attached, which completes the ploughing and pressing the seed furrow in one and the same operation. The presser is so constructed that it can be readily attached to any ordinary plough and regulated to any breadth of furrow.

The patent-jointed clod-crusher, exhibited by Coleman and Sons, by its patent jointed bearings, accommodates itself to the undulating surface of the land in any direction, and supplies a desideratum long and much wanted in the roller and clod-crushing tribe.

It would be an omission in this section not to notice the capital improvement effected by Ransomes and Sims in fixing the teeth or tines in the harrow frames, and also their flexible harrows, by which any undulating surface is harrowed as effectually as if perfectly plane.

Tuxford and Sons, amongst their powerful portable steam engines, exhibited a Lilliputian one, of one-horse power, suited to work chaff-cutters, cake

breakers, root pulpers, churns, &c. ; so that these useful portable steam engines are brought down to suit very small occupations, indeed. It is built of the best materials, and is perfectly safe, as far as we could judge.

Amongst the several portable farm railways exhibited, we find divisible four-wheeled barrow trucks and rails, a great convenience for feeding cattle.

A model of a capital system of irrigation was exhibited by Isaac Brown, of Aberdeen, consisting of a systematic arrangement of finely perforated pipes placed over the surface at regulated distances, and connected with self-acting mains, distributing the water or liquid manure, as the case may be, equally and gently over the land, and may be kept acting day or night at pleasure, without any further trouble or labor. The growth of grass from the water distributed by this model during the show was very rich and luxuriant. The piping used is a composition of lead, and the whole cost of mains and distributing pipes is said to be about \$72 per acre.

A newly-invented churn was exhibited by Wm. Sawney, Beverley, Yorkshire. It is a square box churn, stands upon four legs fixed to a frame, two of which are of wood and hinged, to give free action ; the other two are of spring steel, and fixed above and below. The slightest push gives the churn action backwards and forwards ; it keeps its horizontal position, and the milk or cream is violently agitated within, through and over a simple fixed perforated dash, and the butter produced ; it is a simple and effective invention.

Daniel Lancaster Bank, Camberwell, London, exhibited a model of his traveling suspension railway, suited to every operation connected with agriculture, which he took great pains to explain and illustrate. It deserves the attention of all engaged in steam cultivation.

S. & E. Ransom & Co. exhibited, amongst a large assortment of mechanical apparatus, a patent hydraulic lifting jack ; it is worked by about a pint of fluid, and is a very powerful one, if we may judge of the manner in which it compresses blocks of wood, and is said to be capable of lifting 10 tons ; it struck us that it could be very readily adjusted to compressing hay in trusses, is very portable, occupying but the space of an ordinary lifting jack.

HEALTHFULNESS OF THE TOMATO.—DR. BENNETT writes as follows in regard to the properties of the tomato :

"First, that the tomato is one of the most powerful aperients of the liver and other organs ; where calomel is indicated, it is probably one of the most effective and least harmful remedial agents known to the profession. Second, that a chemical extract will be obtained from it that will supersede the use of calomel in the cure of disease. Third, that he has successfully treated diarrhœa with this article alone. Fourth, that when used as an article of diet it is almost sovereign for dyspepsia and indigestion. Fifth, that it should be constantly used for daily food ; either cooked, raw, or in any form of catsup, it is the most healthy article now in use."

DEPTH OF SOWING WHEAT.

We have heard of an instance in England where wheat had been sown broadcast on the land, and before it could be harrowed in, rain fell and continued to fall for days, so that the seed never was covered, yet the crop did well. On the other hand, we have known seed wheat plowed in three or four inches deep, and this also did well.

Still, the depth at which it is best to sow wheat is a matter of some importance. If all the conditions are favorable, there may be little difference in the result of covering deep or shallow, or not at all. But in the case of a very dry fall, and especially on land from which a spring crop has been removed, it is very important to bury the seed deep enough to insure moisture sufficient for its germination. Hence one advantage of sowing with the drill.

One of the editors of the *Country Gentleman* sowed some wheat on the 21st of last May at various depths, and carefully noted the result. That which was covered half an inch deep came up in 5 days; 1 inch deep in 6 days; 2 inches deep in 7 days; 3 inches deep in 8 days; 4 inches deep in 10 days; 6 inches deep in 12 days. Five weeks afterwards, there was no perceptible difference in that planted half an inch and an inch deep; that planted two inches deep was not quite so good; and so on decreasing in quality as the depth of planting increased. At six inches depth, there were but very few slender stalks.

In the fall of the year, the ground is warmer than in May, and it is well known that the warmer the soil, other things being equal, the sooner will seed germinate. On this account we should perhaps sow a little deeper in the autumn than in the spring.

As a rule, we may conclude that the *shallower* grain is covered, so that a constant and adequate supply of moisture is furnished, the more rapidly will germination proceed. If wheat is sown early enough, rapid germination is not very essential, and therefore the aim should be to get the wheat well and evenly covered, even if germination is delayed a few days. In the spring, when the ground is moist and cool, wheat need not be covered more than an inch deep. In the fall, it may be covered deeper, say from one to two inches—and if the ground is very dry, a little deeper.

SPRING WHEAT IN IOWA.—A correspondent of the Iowa Homestead says the wheat in Muscatine county is not half a crop. The Club wheat which was formerly so successfully raised there, is this year almost a total failure. The Tea or China variety does much better.

SHEEP HUSBANDRY IN IOWA.

Mr. M. K. MERRITT, of Grinnell, Iowa, has been awarded a prize of \$10 for an essay on Sheep Husbandry. It is published in the Iowa Homestead. His experience is interesting and instructive.

In July, 1860, he purchased 500 cross-bred sheep that had been driven from Michigan. He joined flocks with a friend who had 300 head. The whole flock was turned out on the prairies under charge of a boy. They were herded mainly on short grass, furnished by burning over a prairie in June. This grass is then sweet and tender, and sheep thrive well on it. The sheep were yarded nights and for two or three hours during the hottest part of the day. The yard was on a side hill, with a slope sufficient to allow the manure to be washed off by the rains, and to leave the yard dry and clean. The yard was surrounded with a post and rail fence sufficiently close to prevent dogs and wolves from creating havoc.

The fall feed began about the 10th of October. This consisted of sheaf oats. About 60 or 70 sheaves a day were fed to the 500 sheep before they were turned out in the morning on to the prairie.

On the 18th of November the flock was taken into winter quarters, separated into five lots. The food consisted of prairie hay and corn. On the 15th of April the flock was turned out to pasture. He lost but one sheep during the winter. He raised 200 lambs. The whole flock averaged $3\frac{1}{2}$ lbs. of washed wool each.

Mr. M., who is a native of Vermont, thinks Iowa destined to be a great wool-growing State. The air is dry—the winters free from rain—the country rolling, and millions of acres of good sheep pastures in nature are unclipped. It costs but little to transport wool to the East, but the freight on grain is very heavy. It is becoming the general opinion, he says, that farmers in Iowa cannot thrive by wheat and corn raising alone. They must raise more sheep and cattle.

LEGISLATION ON THE CANADA THISTLE.—At the last session of the Pennsylvania Legislature, a law was passed to prevent the spread of the Canada thistle. "Hereafter, any individual or corporation in that State, allowing the Canada thistle to ripen on his or on their premises, shall be liable to a fine of ten dollars, upon each complaint that is properly established; and any one who may fear the spread of the Canada thistle upon his premises from the lands of his careless or thriftless neighbor, may, after five days' notice, enter upon any lands where the weed is found growing, cut it, and recover full costs for the labor and trouble."

AN OLD VIRGINIA ESTATE.

A CORRESPONDENT of the New York *Evening Post* favors that journal with some recollections of a visit to some estates on the James river two years ago. He proceeded down the river from Richmond to Clarendon—a distance of eighty miles. The river most of the way averages from one to two miles wide, and is beautifully wooded with very thick foliage; a good many willows and oaks, hollies thirty or forty feet high, and myrtles such as we at the north grow in our green-houses. The banks of the river rarely if ever rise higher than forty or sixty feet, and are generally much lower.

There are many old houses and large estates on the river, several of which are described. One within seventeen miles of Richmond consists of 4,253 acres. This farm is exceedingly productive. There were 975 acres in wheat, 1,000 in corn, and the balance in oats, clover, grass, etc.

Another estate comprises 3,000 acres, 500 of which were in wheat, 300 in corn, and 320 in clover. The wheat averaged 25 bushels, and the corn 50 bushels to the acre.

At Westover and Brandon, there are also some magnificent estates. The latter consists of 18,000 acres. The house is approached from the river through a broad grass vista, fifteen feet in width and a quarter of a mile long—beautifully smooth and well kept, and thickly planted on either side with hollies, the evergreen magnolias and fringe trees; this vista or alley leading out to a regular, almost square lawn of six acres, as level and smooth as a floor. It is two hundred years since it was laid down in grass! The house is covered with ivy.

This farm in 1860 produced *eighteen thousand bushels of wheat and twelve thousand bushels of corn.*

Next we arrive at Clarendon—owned by Mr. ALLEN, a young man of twenty-nine. It consists of 17,000 acres; 1,700 of which were in wheat and 2,000 in corn. There is a deer-park of 7,000 acres, enclosed by a paling seven feet high, and in which were several hundred deer. These Mr. ALLEN hunted with a pack of hounds twice a week during the season. He had fifteen thoroughbred horses in his stables. Besides Clarendon, Mr. ALLEN owned three other estates, the whole comprising over 25,000 acres. In 1860, he had 5,109 acres of wheat, producing over 125,000 bushels, and 4,500 acres of corn, producing 135,000 bushels!

The writer says: "The courtesy and hospitality with which we were entertained here and on the other estates, was well worthy of the ancient renown of Virginia in times gone by, never probably to return."

IMPORTATIONS OF FOREIGN GRAIN INTO ENGLAND.

In a recent speech in the House of Commons Mr. CAIRD stated that since 1847 one-fourth of the population of Great Britain subsisted on foreign wheat. During the last three years this proportion had been gradually increasing, "and within the last harvest year probably not less than *one-half* the population was fed on imported corn." This was partly the result of a very deficient harvest, but partly also, he believed, it arose from a diminished breadth of land sown to grain. "The high price of labor, and the increasing value of live stock and animal produce, concurred in tending to diminish the extent of land in grain, and to increase that of pasture." If one farmer, he said, found it to his interest to lay one-fourth of his grain land to grass, the probability would be that the same circumstances might influence all others. "Now," he said, "one-fourth of the corn [wheat] crop of these kingdoms might be taken at 80,000,000 bushels. A deficit so vast, coming suddenly and without warning, would agitate every market and unhinge all monetary operations." To some extent, he believed, they were at present experiencing the effect of such a change. "The deliveries of home-grown wheat, as shown by the returns of the last 16 weeks of this and the previous years, was 50 per cent. less than the average of preceding years." Three-eighths of all the grain imported into Great Britain last year came from North America. England paid for foreign wheat last year the vast sum of \$175,000,000, and this was \$75,000,000 more than in any year previous to 1860. Taking the three last years and comparing them with the previous years, "we should find," he said, "the most startling result. That which cost us \$330,000,000 in 1857-8-9, has increased to \$590,000,000 in 1860-1-2. So that we have been paying \$86,000,000 a year more for foreign corn and provisions than we have been accustomed to."

THE HOG CHOLERA.—A correspondent of the Iowa Homestead says the hogs are dying by the thousand in his neighborhood. No remedy has been found, but it has been observed that hogs around blacksmith shops, where they have access to the cinders, have entirely escaped. There can be no doubt that pigs should at all times have access to coal or wood ashes, charcoal, salt, &c.

**IS GRAIN GROWN UPON POOR SOIL AS RICH IN
ALL THE ESSENTIAL INGREDIENTS OF
NUTRITION AS THAT WHICH IS
GROWN ON RICH SOIL?**

EDS. GENESEE FARMER:—In looking over a late number of your paper, under the head of "Why Cattle Chew Bones," after stating the general impression on the subject, viz., that it is because the soil lacks phosphates and hence the crops grown upon it are deficient in this material, you remark: "We do not believe that a plant of clover grown on a soil deficient in phosphates would contain any less of this substance than those grown on richer land. If the soil contained no phosphates, the plant would not grow at all."

I had entertained the opinion that corn or other grain grown on a poor soil would contain all the nutritious properties (although the yield would be less) in about the same proportions as that grown upon rich land, until convinced to the contrary by the experiments of Dr. ROBERT PETER, of Lexington, Kentucky. In conducting extensive analyses in connection with the geological survey of Kentucky, Dr. PETER procured, through the agency of Mr. SIDNEY LYON, Topographical Engineer in the Survey, a number of ears of corn grown upon the poorest soil in one of the poorest sections of the State, for the purpose of analysis, in comparison with corn grown near Lexington, on the richest soil in the State. The corn sent by Mr. LYON was of a yellowish red variety, generally considered more productive on poor soil than white corn, and withal richer in oil than the white varieties generally. Accompanying the corn was the following geological description of the soil upon which it was grown: "The waste of the second sandstone above the base of the millstone grit, the surface of the field being well covered with small fragments from that bed. The corn from $6\frac{1}{2}$ ears weighed 2 lbs. 6 oz., averaging about 7 inches to the ear, and these were the best that could be found. Produce, about 8 to 12 bushels to the acre."

For comparison, Dr. PETER procured five ears from the rich land of Fayette county, of the blue limestone of the lower Silurian formation. Produce, about 75 bushels to the acre (with the careless cultivation of the West), which is below the ordinary yield, the season having been an unfavorable one. The weight of the corn from these five ears was 3 lbs. 8 oz. The ears averaged $7\frac{1}{2}$ inches in length each. Weight of the cob when dried was about one-sixth of the corn. The variety was the common white.

The following is Dr. PETER's statement of the analysis, with some of his remarks:

"The examination of the two specimens, taking equal portions of the meal resulting from grinding in a hand mill, resulted as follows:

(A), corn from the poor field.

(B), corn from the rich field.

IN 100 PARTS OF THE THOROUGHLY AIR-DRIED CORN:

	(A)	(B)
Yellowish oil.....	4.6000	5.2600
IN THE ASH:		
Potash.....	.2840	.2873
Soda.....	.0854	.2204
Lime.....	.0052	.0076
Magnesia.....	.0713	.1257
Oxide of iron and manganese not estimated.		
Phosphoric acid.....	.3513	.4230
Sulphuric acid.....	.0165	trace.

Chlorine not estimated.	(A)	(B)
Silica.....	.0150	.0250
Carbonic acid and loss.....	.1513	.3195
	0.9500	1.4120
Proportion of phosphate of lime.....	.0098	.0139
Proportion of phosphate of magnesia.....	.1984	.3284
Phosphoric acid combined with alkalis.....	.1488	.1870

In these analyses, only the principal mineral ingredients and oil are noted. The former—the mineral elements—conducting, with the so-called *organic elements* of the corn, to the growth of the bone, muscle, etc., and the oil to the fattening of the animals fed upon it. The proportion of these organic elements, viz., of the carbon, hydrogen and nitrogen, were not sought for, because these are not taken from the soil by the plants, but are supplied from the water and the atmosphere, and consequently are abundant everywhere; and especially as they are found always in the fixed proportions in the organic matters of vegetable and animal bodies."

So far as this one analysis goes, it would seem that you are mistaken in your conclusion in regard to clover, etc., grown upon soil deficient in certain ingredients. My observation, since the date of the analysis referred to, rather goes to convince me of the error of opinion formerly entertained.

Dr. PETER, in speaking of the rich "blue grass region" of central Kentucky, on the fertile soil formed by the disintegration of the soft layers of blue limestone of the lower Silurian epoch, remarks: "I have often had occasion to admire the luxuriant growth of vegetables, and the rapid and perfect development of the animals raised upon it. Compared with some of those of the poorer soils of some of the other geological formations, the horses, mules, hogs, cattle, and even *men*, and the cats and dogs, seem to be of larger growth, and present a much more thrifty and well-fed appearance."

I present you these statements because they are interesting, whether you admit the conclusions or not.

H. P. B.

Sag Harbor, N. Y.

REMARKS.—We cannot admit the conclusions. We do not see that these analyses prove anything. They are incomplete. They do not show how much starch, vegetable albumen and other nutritious substances there was in the corn. The one that has the least oil may have had the most starch. In fact, judging from the analyses, it is highly probable that such was the case.

Then, again, the corn was not the same variety. It may be, too, that the climate was not the same in both cases—and we know that *climate* has more to do with variations in the composition of grain than the soil.

Had our friend H. P. B. sent us the analyses of these two samples of corn, without saying anything in regard to the conditions under which they were grown, and asked us to say which was the best sample of corn, we should have replied, "it is impossible for any one to tell." If pressed for an *opinion*, we should have been inclined to have

selected "A" as the best corn—for the reason that it contained the least ash.

As a general rule, grains of the highest quality contain the least percentage of mineral matter or ash. The *bran* of wheat contains about *ten times* as much phosphoric acid and other mineral matter as the *flour*. The coarser the grain, therefore, the more mineral matter it contains. If, therefore, the above analyses show anything, it is that the corn from the richer land was the poorer sample.

An immature plant generally contains a higher percentage of ash than one fully developed. Turnip leaves contain more ash than the bulbs, while it is well known that they are by no means so nutritious.

In the article from which our correspondent quotes, we admitted that if a meadow was deficient in plant-food the herbage grown upon it might be deficient in nutritive qualities—from the fact that the more nutritious grasses died out and their place occupied by those of an inferior order. On the other hand, we asserted our belief that the *same plant* (clover for instance) if grown on land deficient in phosphates would contain no less a *proportion* of phosphates than the *same plant* grown on a soil containing a sufficiency of phosphates. The plant would be smaller, but what there was of it would be as rich in phosphates as the other.

Our correspondent thinks we are in error, and offers the above analyses of Dr. PETERS as evidence of the fact. The corn grown on the rich land contained 1.41 per cent. of ash; that grown on the poor land contained only 0.98 per cent. This fact simply shows that there was *more* organic matter in the corn grown on the poor land than on the rich land. It indicates, as we have said, that the corn grown on the poor land was more perfectly matured than that grown on the rich land.

The percentage composition of the two ashes is not given; but we can get at it by calculation. Thus, 98 parts of the ash from the corn grown on the poor land contained nearly $28\frac{1}{2}$ parts of potash. This is equal to 29 per cent. On the other hand the 141 parts of ash from the corn grown on the rich land contained $28\frac{3}{4}$ parts of potash. This is equal to only 20 per cent. The same calculation shows that the ash from the corn grown on the poor land contained over 35 per cent. of phosphoric acid, while that from the rich land contained only 30 per cent.

According to Dr. PETERS' own figures, then, we have the two most important constituents of the ash in greater proportion in the corn from the poor

land than in that from the rich land. This will be best shown by placing the figures in tabular form:

PERCENTAGE COMPOSITION OF THE ASH OF CORN.		
	(A) POOR LAND.	(B) RICH LAND.
Potash.....	29	20
Phosphoric acid.....	35	30

What does our correspondent say to these figures?

If the poor soil was deficient in phosphates, it is evident there was no deficiency in the ash of the corn. In fact, if these analyses can be relied upon, there was *more* phosphoric acid and potash, *in proportion to other mineral ingredients*, in the corn grown on the poor land than in that grown on the "richest soil in Kentucky." Eds.

THE BEAUTY OF ENGLISH FARMS.—A writer in the *Boston Review* says: Of the picturesque beauty of English farms it is hardly possible to speak in terms too glowing. At a distance they present the appearance of innumerable parks. As you roam over a particular farm you are struck with the number, size and variety of the trees. The elm, some specimens of which we nurse and guard with so much care on our Common, grows in its native soil to a surpassing magnitude, and is covered with a foliage of exceeding luxuriance. The walnut, whose fruit we import, is also a tree of immense size. We remember one in a brick yard at Bury St. Edmunds, amid the foliage of which a large house might be entirely hid in leafy June. This particular tree is said to be one of the largest trees in Europe. The magnificent horse-chestnut is found everywhere, of wide-spread and towering dimensions. When you first see it in full foliage, laden to the uppermost twig with its rich conical clusters of blossoms, you are filled with astonishment and admiration.

HOMES FOR THE HOMELESS.—The Hamilton (Iowa) *Freeman* calls attention to the vacant lands in Northern Iowa in the following strain:

"If any of our Eastern readers know of a poor man who would 'do well,' if he had a farm of his own, just advise him to set his face at once for Northwestern Iowa, where he can get one hundred and sixty acres of the best land on the continent as a free gift from our beneficent Government. No country in the world, no State in the Union, offers such inducements to the man of small means."

STEAM ENGINES ON COMMON ROADS.—These are being introduced into England. The *Mark Lane Express* says a short time since one of these engines drew two wagons, weighing with load ten tons, up an inclined plane of 1 in 8. It was stopped and easily started again on the instant.

WINE MAKING.

EDS. GENESEE FARMER:—The making of wine from native grapes is now becoming a common practice in this country, not only on an extensive scale, but also in small quantities for "home consumption." Within 20 miles of Cincinnati, over 2,000 acres are now cultivated in vineyards. The Catawba is the grape chiefly grown, but there are many vineyards of the Isabella also. Other varieties are being introduced, and it is quite probable that in the course of 10 or 15 years those old varieties will be discarded for some of the new, popular kinds now cultivated.

The vintage of Ohio averages from 300 to 400 gallons per acre, while some vineyards reach 600 gallons, which is usually sold at \$1 per gallon.

The Delaware grape, Herbemont, Concord, Cape, and Norton's Virginia Seedling, are likewise cultivated for wine making; but it is a difficult matter to persuade the owners of vineyards to discard varieties which have cost them many years of hard labor, and great expense, to make room for new kinds, even if they are much better than those commonly cultivated.

The following are the requisites to make good wine: A cool, airy cellar, and clean cask.

Leave the grapes upon the vines until they are fully ripe, then gather them, and remove all unripe or imperfect, when they are ready for the mill. The *must* (juice) is taken directly from the press and put into large casks in the cellar, when a syphon is placed in the bung, and made air tight around it, when the other end is put into a vessel of water, immersed about four inches. This allows the gas arising from fermentation to pass off, while no air can return into the casks.

Where the wine from several vineyards is gathered, a cistern is used to put the whole in, so that the wine may be all of the same quality. As soon as mixed, it is placed in casks for fermentation.

The wine *maker* is usually entirely disconnected from the growing of grapes. The *must* is brought to him, as the farmer carries his cider to the distillery, which is sold at a low price—about \$1 per gallon—and the wine manufacturer attends to the fermentation, fining, &c.; and at the end of a year or more, he offers his wine in the market, by the cask or bottle, and at a price that affords a good compensation.

The syphon remains in the water about 15 days, when the fermentation will be over; then fill the casks with the same kind of wine, and bung them loosely for 10 days, when they should be driven in

tight. The wine is now left undisturbed till the following February or March, when it is racked off into clean casks, and the material for *fining* is now added, consisting of the whites of two dozen eggs to every cask, well beaten and mixed with a few quarts of the wine, before being turned into the casks. In the following fall, it should be racked again, when it is ready for bottling.

Neither sugar nor spirits of any kind are added to the *must*, nor to the wine at any stage of its manufacture. The quality of the wine, however, is far inferior to the best imported brands; and it is a mystery with many, how sale can be found, at from \$5 to \$8 per dozen bottles, for a wine that is but a grade better in flavor to good, old cider.

But it is impossible to make wine from all kinds of grapes, that will not become *vinegar*, without using sugar, and some manufacturers contend that the best wines made in this country, contain both of these ingredients; but there is a wide margin of different opinions on this point, which may be settled to the liking of each manufacturer. I am of the opinion, however, that *vinegar* will be more plenty than it has been, if all of our grape growers attempt to make wine without sugar, and perhaps without something stronger.

For the benefit of those who shall desire to make a few gallons or a barrel of grape wine in October next, for their own use, and who have few or none of the facilities of professed wine makers, I will add the following rules:—

Place the grapes in a clean, tight cask, and mash them with a clothes pounder, or any similar instrument, till the pulp and seeds are wholly separated from the *must*. From a half bushel to three pecks of grapes may be mashed at one process; then turn out the mash into another barrel or tub, and proceed as before till all your grapes are mashed. A bag is now to be provided, made of strong strainer cloth, into which place the mash in small quantities, and press out the *must* over a clean tub, by first placing a board across the tub, on which the bag of mash is placed, then make a lever of a strip of plank, about 8 feet long, one end of which is to be placed in a firm position just above the board across the tub, while you take hold of the other end to apply the pressure, which will be enough to rend any bag but a very strong one. By placing the tub on a barn floor, against a stud, a strip of wood may be nailed to the stud to sustain the lower end of the lever.

You, who are not used to such wine making, will be surprised to see how speedily grapes enough

for a barrel of wine may be mashed and pressed by this simple process. I made two barrels on it, in half a day in 1860, when I commenced the manufacture of domestic wine.

The quantity of sugar used is from two to three pounds to the gallon of *must*, the latter quantity making the best wine. It should be a good article, the granulated, or the white coffee sugar. Nothing is saved by purchasing an inferior kind.

To ferment the wine, put it in casks, however small the quantity; but it is not advisable ever to make less than five gallons, which should be put into a keg holding that quantity. Fill the cask full, place in the bung tight, and bore a gimlet hole at the side of it, into which place a spile so loosely that the gas may escape around it, or it may be left out altogether for 15 days, when it may be put in. If a small syphon of glass or tin can easily be procured, it is better to use one; but your wine will not be injured much, if any, without one.

The spile should be removed two or three times a week, for a few weeks, to allow any gas generated within to escape. Follow the rules for after management, as here laid down for wine making on a more extensive scale, and that is all you have to do; but in no case should you consider your wine ready for use till it is a year old.

Orlinton, N. Y.

T. B. MINER.

MANURING WHEAT.—In answer to the question, "What time ought soils for wheat to be manured?" the *Ohio Farmer* says:

"It is usually best, if a large supply of manure is applied, to manure the previous crop. By this means, it is thoroughly incorporated with the soil, and has time to become well decomposed. If it is quite rotten, it may be applied previously to the fall ploughing; or, if it is thought best to apply it to the surface, after the ploughing. The wheat ought to have the advantage of the application during its fall growth. If the roots are well set before winter, there is little danger from winter-killing, and the plant, in spring, is ready to make a rapid growth. Heavy manuring of wheat, at the time of sowing, with crude manures, is not advisable."

A BIG CROP OF STRAWBERRIES.—The Massachusetts *Ploughman* says J. W. MANNING, of Reading, Mass., raised this season, from a square rod of ground, 50 quarts of strawberries. This is at the rate of 8,000 quarts, or 250 bushels per acre.

Last year, Mr. CONKLIN, of this county, raised 45 quarts from a bed 7 feet wide by 20 feet long. This is at the rate of 13,995 quarts, or 437 bushels per acre. We are 187 bushels ahead. Massachusetts must try again!

NOTES FROM CANADA WEST.

EDS. GENESEE FARMER:—Your correspondent from East Zorra, C. W., in the August number, must have taken a blue pill, or had a fit of the gout, when he wrote you such a melancholy picture of the agricultural prospects of his locality, for it true of his own immediate neighborhood, it certainly is not true of other portions of this province.

We have just secured, in good condition, the best crop of winter wheat since the advent of the midge; and in spite of the aphids and partial ravages of the midge, the spring wheat, now ready for cutting, promises a good return and a fine sample, though somewhat short in the straw.

I have seen some as fine fields of hay this season as I ever saw in my life, but it was principally on meadows of the first or second crop, which is quite long enough for a good system of rotation. If meadows are allowed to run out, we cannot expect them to yield well.

It is true, that from the 22d of April and through May we had but one good shower, yet as it was rather cool, things did not suffer so much as they otherwise would have done, and it was a capital time to kill weeds, couch grass, &c. Carrots on heavy lands did not come up well, but on light, well prepared lands they vegetated freely enough and look now remarkably well. But turnips are very fine and give large promise of a good crop. An unusual large breadth has been sown, but not much more than the average increase for the past few years. Very little turnip seed is raised in this country, the greatest portion being imported from England, the seed from there being considered better than that raised here. I know one person who has eighty acres of roots this season, and throughout the province I believe there are acres now where ten years ago there were bushels.

Fruit will be an average crop, but not so heavy as was at one time anticipated. The drought caused the trees to cast rather more than usual when about the size of acorns, but this was very fortunate for pears, as it saved us the trouble of thinning, and will give us a much better sample, both of pears and apples.

Upon the whole, we consider this season a most favorable one, with abundant cause of gratitude to God, not only for plenty but for peace to enjoy it; and we deeply sympathize with you in the endurance of those trials that are now carrying sorrow to so many a household and spreading so heavy a cloud upon your otherwise happy prospects.

Niagara, C. W., Aug. 7.

R. N. B.

EXPORTATION OF CHEESE AND BUTTER TO EUROPE.—The *New York Journal of Commerce* gives the following table, showing the exportation of butter, cheese and lard from that city, during the last three years:

	lbs. Butter.	lbs. Cheese.	lbs. Lard.
1859.....	2,494,000	9,287,000	11,015,000
1860.....	10,957,000	23,252,000	18,860,000
1861.....	23,150,000	40,041,000	47,200,000

Compared with other agricultural products, the freight on these articles in proportion to value is very slight, and we see no reason to doubt that they will be exported in greatly increased quantities.

MANAGEMENT OF HONEY BEES.

This season, in Central New York, has been one of the best for storing surplus honey that I have known for many years; and it is important that bee-keepers should know how to avail themselves of the labors of the bees on such extra occasions, so that they may not be idle for the want of space in which to deposit the honey.

In many cases, as all experienced apiarians know, a set of caps will be filled before, or about the time that swarming commences. Stocks which thus fill the caps, and swarm immediately after, will not generally be able to store up any more honey; but if they do not swarm, as often happens, the bees increase in numbers till large clusters adhere to the outside of the hive day and night, and their labors are wholly lost. My system with such families is to supply a double set of caps, one upon the other, with a passage of inch holes through them. I frequently set these double tiers of caps upon all my strong families early in the season, and then regulate them according to circumstances. If I find that but one set can be filled, I remove the others where they are needed, even after a good beginning of comb building has been commenced in them. In some cases, when the caps are nearly filled, and it is evident that the bees are too weak in numbers, owing to having swarmed out, to complete the filling of them, I remove them to hives where they will be completed.

I remove the bees in them as follows: I set the caps upon boards, with the holes in them so as to allow the bees to come out, and then cover the whole with a box, which I raise from the boards about half an inch, which allows a little light to enter, and the bees all leave their boxes during the day, and return to their hives. Sometimes, in cases of brood being in the caps, the bees will not leave them, and it becomes necessary to return the caps to the hives, till the brood matures. I found drone brood in a good many of my caps this season, which was caused by the lack of space below to rear that class of bees, owing to the cells having been filled with honey, before the queen was ready to deposit her eggs for drone brood.

Where hives are made in moveable sections—the upper parts to lift off, a set of caps, with bees therein may be rid of them very handily, by covering them with the upper part of the hive, while the holes in the hive proper may be temporarily closed with anything handy for the day. At evening the boxes will be free of bees, and the *supers* of the hives may be placed in their proper position.

On one occasion, I tried the experiment of removing a set of boxes, about half filled with honey

and bees, from an old stock to a swarm, about two weeks old, which I considered able to fill up said caps. The bees in the hive immediately began to eject the bees in the caps, and the war raged about 24 hours, when I judged that half, at least, of the bees in them had been killed. From this experiment, we learn that it is better to give the bees a day, under boxes, or the supers of the hives, to leave the caps, before they should be placed over other families.

Cases occur where caps are filled with combs and honey, but the cells are not sealed over, and if left to have that done, a week of time is lost in the best of the honey harvest. On such occasions, I transfer the caps to some weak family, or swarm, with bees enough to seal over the caps, while I place an empty set of caps upon the hive from which they were taken, which are filled; but if I had waited to have had the combs in the original set sealed over, I should have failed to obtain a second set of caps filled.

My caps, when filled, weigh from six to seven pounds, and *four* constitute a set, worth in the New York market about *one dollar* each; therefore it may be readily said that a family of bees may be made to store up *four dollars'* worth of honey *extra* from what is generally expected, merely by a little good management.

I had one family, this season, very strong, which filled *thirteen* caps, and would have filled several more, had not some of those filled contained drone brood, and could not be removed. Here we have a case in which *thirteen dollars'* worth of honey, at least, was stored by a single family of bees, when under ordinary management, it would not have stored over 20 lbs., worth from \$3 to \$4 in New York. This family did not swarm, of course.

But after all, bee-keeping in most hands is not very profitable; and frequently, where large numbers of families, say from 15 to 100, are purchased by persons who are not skilled in the management of bees, a considerable loss occurs, and eventually the business is abandoned in disgust. I advise no one to embark in this business, until he has first spent years in the careful management of bees, and then it is unsafe to invest much *cash* in it. If one can obtain a large apiary, by the increase of a few original families, it is well; but to invest hundreds of dollars in bees, with but little practical experience, is not wise. Some people, after having read some good practical work on Bee-Keeping, imagine that they know all about it, and at once launch out into the untried field, to reap a great deal of disappointment, to say the least of the matter.

But little can be done with bees from now till they are put into winter quarters, except to prevent their robbing each other's hives, which is effected by letting down hives, if raised, upon the stands, and partially closing the entrances of weak families—not *after* the robberies commence, but now before the damage is done. When the honey harvest has not been abundant, and where weak families of bees exist, they must be looked to immediately, and their passage-ways closed so as to allow but two or three bees to enter at once; and in some cases of weaker families, but one bee at a time.

A little attention to this matter *now* will, perhaps, save the loss of several weak families in every apiary. You need not trouble yourselves at all about the strong families, as they can and will take care of themselves.

Clinton, N. Y.

T. B. MINER.

"**NOTHING TO DO.**"—The *New England Farmer* says: "We have for several years known an elderly farmer, whose fields are level and well adapted to the use of the mowing-machine, but who could not surmount the idea that machinery is a plague on the farm. So at early dawn he has bent over the scythe on his broad acres, until he has acquired a bend in his back that no medicament can cure. This year the pressure was too strong for him. He heard the 'clack' of machinery all about him, and saw his neighbors clearing their fields at the rate of two acres to his one. He could stand it no longer. A wood-machine was purchased, and proved a good one, and now he may be seen early in the morning under his beautiful trees, feeding the poultry, or slowly following his fine cows as they nibble the sweet grass on the roadside, on their way to pasture. He is in no hurry, not he. He sits twice as long at the breakfast table as he did last year, and thinks the food tastes better than it did then. He rises early, to be sure, and his practiced eye scans every thing, and sees that all is right. The horses are hitched to the machine about nine, and, *presto*, before twelve there is as much grass down as all hands can take care of. He thinks he can earn more in the time which he has to bestow upon his stock and his care of 'little things,' than he ever did in the mowing field. Indeed, it seems, he says, as if he had 'nothing to do.'"

STAMPING FRUIT.—A German journal publishes the following: "At Vienna, for some time past, fruit dealers have sold peaches, pears, apricots, &c., ornamented with armorial bearings, designs, initials and names. The impressions of these things are effected in a very simple manner: A fine fruit is selected at the moment it is beginning to ripen—that is, to take a red color—and paper, in which the designs are neatly cut out, is affixed. After a while the envelop is removed, and the part of the fruit which has been covered, is brilliantly white. By this invention the producers of it may realize large sums."

FARMERS WANTED IN INDIANA.

EDS. GENESEE FARMER:—Why don't some of your people who want farms come to this region—Central Western Indiana? The country west of Indianapolis, near the National Road and St. Louis Railroad, is good, healthy, mild in climate, very finely watered and timbered, and is cheap. It is almost, if not quite, a first-class grass and fruit region. We have most glorious woods, (excuse "glorious"—I am just from the poor timbered Lake country, and I love fine, rich forest trees)—of large beech, oak, sugar-maple, hickory, elm, poplar, lynn, black-walnut, ash, haskberry, &c., with almost no bushy under-growth at all. A good pasture is made here by simply "deadening" the beech and sugar trees, leaving the timber standing alive for after use. In two or three years you can fence up a good pasture of the indigenous blue-grass and red-top, and clear up the dry trees as they fall. Of course, if near the railroad, the wood is chopped and sold instead of being deadened.

The creeks putting into the Wabash run for long distances through the country, and are fed by smaller branches of the clearest water, which meander through and drain the whole, and springs are plenty. The bottom lands on these streams from ten rods to a mile in width, are warm, rich and mellow, and of the very finest character. Consider soil, climate, timber, water, stone, coal (abundant in Vigo, Clay, Putnam and other counties,) and our land must be a desirable one. We have to fence stock from the last of November to April first.

We are a somewhat slow people. Very little capital was brought by early settlers. Perhaps nearly one-third of our people are descended from emigrants from Kentucky; over a third from those from Ohio, and the residue from those of Eastern States—from Maryland to Massachusetts. We need more Yankees. There are a great many farm one-third to one-half improved, that are cleared fenced, worn out by corn crops for the hog, bushy briary and foul, with no sheep on them, that could be bought at low rates, and would require but very little labor to make them beautiful and valuable.

As to the prices of land, I suppose \$25 per acre for choice down to \$10 will cover the whole truth. Many farms of 40, 80, 120 and 160 acres and upward, may be had at \$12 to \$20 per acre—some for \$10—and the terms are generally about one third cash and the residue on liberal time.

I am from Maryland, and have beside me an old friend from Rochester, N. Y., who is gradually leading me into fruits, &c. I wish some of your people who want good, cheap farms, in a mild climate who will grow grass, fruits, sheep and cattle, and exclude the *hog*—which has been the ruin nearly of this country—would come out here and settle.

J. M. MULLIKIN.

Reelsville, Putnam County, Ind., August, 1862.

PEDIGREE WHEAT.—The *Irish Farmers' Gazette*, speaking of HALLETT's Pedigree Wheat, exhibited at the Royal Agricultural Fair, says, "to be candid we did not think much of it, and the foliage of the live plants exhibited, grown from single seeds though they had tillered enormously, was greatly damaged by rust." This has always been the objection to thin seeding—the crop is apt to rust.

SEED WHEAT.—After alluding to the results of J. HALLETT, of England, published in the *Genesee Farmer* for June, in selecting seed wheat, the *New York Tribune* urges every farmer to examine the heads of his wheat and select out the fairest for seed, and says:

One man gained celebrity for his seed, which he called "barrel wheat," from the peculiar mode of thrashing it, which was by whipping sheaves over a barrel in such a manner that none but the projecting heads were shelled, and these were generally the heads of the longest stalks, and best heads, which first ripened.

Never take seed from wheat that has been thrashed by a machine, unless you can afford to lose ten per cent., for that amount at least has been injured by blows of the thrashing spikes, so that it will not vegetate. This has been proved by dissecting the grains and examining with a microscope.

Never take seed promiscuously from any pile of wheat. With a good mill you can screen out one-rod or more.

Never sow wheat that is not absolutely free of other seeds, smut included, for what you can screen and blow out you can get rid of by thrashing.

WHEN TO SELL WOOL.—The *New York Tribune* Aug. 16 says:

We believe that we can answer this important question, which all sheep owners are putting to themselves, or mentally to themselves, that is, "When shall I sell my wool?" For the last ten years, we have been assured by a disinterested person who has been in a position to know, good fair clipped wool has sold at prices that will average 40 cents a pound. At this, then, the price at which a farmer can afford to sell his wool at his own house or convenient market town, less the expense of transportation and sale in this city. If he can get more than this average price he is lucky. If the price is much lower than that, he can afford to store his wool and wait for a more favorable time. At the present time the price is more likely to rule above than below the average, for while cotton rules so high people will wear more woolen cloth and use wool in a variety of ways in preference to cotton. For bedding, as well as clothing, there is no doubt about the healthiness of wool over cotton. It is probable that the grade of wool that will be most in demand this season will be long staple fine, such as may be wanted for delaines, which will be largely worn in place of calicoes and other light cotton goods. Such will sell above the average market price. Those who have large clips of extra fine wool do not need any advice from us when to sell; they know that the prospects are all in their favor.

SNAILS AND MUTTON.—A writer in *Blackwood's Magazine* says, we all know how very excellent the Dentmoor mutton is: few probably are aware that it is to the snail we are indebted for the richness of its flavor. A correspondent of *The Field* newspaper is quoted as the modern authority, but

he only corroborates a very old belief. BERLASSE asserted it in his *Natural History of Cornwall*, a hundred years ago. Mr. JEFFREYS gives the passage.

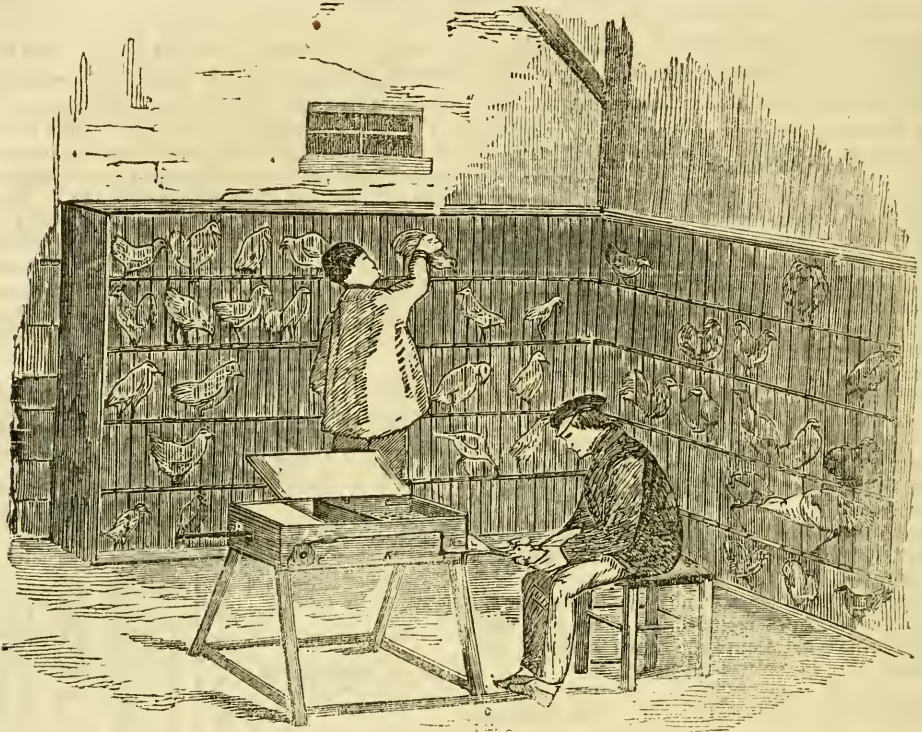
The sweetest mutton is reckoned to be that of the smallest sheep, which usually feed on the commons, where the sands are scarce covered with the green sod and the grass exceedingly short. From the sands come forth snails of the turbinated kind, but of different species and all sizes, from the adult to the smallest, just from the egg. These spread themselves on the plains early in the morning, and whilst they are in quest of their own food among the dews, yield a most fattening nourishment to the sheep.

TRIAL OF MOWING MACHINES.—At a recent trial at Fishkill, N. Y., several mowing machines were tested by the dynamometer, under the superintendence of H. L. EMERY, of Albany, N. Y. The length of trial swaths cut was 20 rods. The following table shows the results:

NAME OF MACHINE, AND WHERE MADE.	Width of cut of machine....		Time of cutting in trial....		Draft in pounds during trial....		Acres per day of 10 hours at same speed.		Pounds of power required per acre at same rate of speed as in trial.....	
	ft.	in.	m.	sec.	lbs.	ac.	rods.	ft.	lbs.	
Wood's, Hoosick Falls.....	4	0	1	40	218	10	149	34	11,990	
Buckeye, Poughkeepsie....	4	1½	1	23	206	10	80	70	11,940	
Union, Worcester, Mass....	4	0	1	25	247	12	133	26	11,549	
Gleaner, Poughkeepsie....	4	6	1	7	238	13	50	217	9,270	
Van Anden, Poughkeepsie....	4	5	1	15	295	16	9	189	11,019	
Ohio, Auburn.....	4	0	1	15	245	14	83	163	10,106	
Monitor, Poughkeepsie....	4	8	1	18	247	16	50	193	9,053	
Union, Poughkeepsie....	4	6	1	27	245	13	40	83	10,107	
Monitor, Brooklyn.....	4	6	1	50	225	11	17	89	12,084	
Hubbard's, Troy.....	4	0	1	50	193	9	146	212	11,662	
Pine's, Troy.....	4	6	1	80	193	13	28	97	8,490	

A GREAT CLIP OF WOOL.—California is destined to be a great wool State. Several importations of fine woolled sheep have been made from the Eastern States, and the native flocks greatly improved by judicious crossing. There are several ranches where ten thousand sheep are kept. The *California Farmer* of a late date says:

Flint, Bixby & Co., of San Juan, Monterey Co., are now here, making preparations to ship their wool to Boston by the Rambler. They shear this spring 17,000 sheep, from which they realize from 85,000 to 90,000 lbs. of wool, valued to-day at 26 cents per lb. all round. About half their flocks were sheared last fall, yielding 40,000 lbs. They have a single flock of 3,300 fine sheep, from which the average weight of the fleece is 7 lbs. 5 ozs. They lost in all about five hundred head last winter by exposure, and raised this season 8,500. Their wool is Spanish Merino. They own a buck, "Old Abe," a thorough-bred Spanish Merino, for which they paid E. Hammond, of Middlebury, Vt., \$1,000. He is now eight months old, and is said to be one of the finest bucks in the country.



A MACHINE USED IN FRANCE FOR STUFFING FOWLS.

A MACHINE FOR FATTENING FOWLS.

It would be a great step gained if all fowls brought to market were to a certain degree fattened. Although the art of fattening has in some countries been carried to a great extent, most of the fowls brought to market are in a sadly meagre state, notwithstanding the fat ones are more profitable, to those who raise them as well as to those who consume them; for although a higher price is paid, there is still a larger gain in the quantity and excellence of the flesh.

It is a well known fact that fowls can digest more food than they can eat. The old system of cramming turkeys for "Thanksgiving" was a most happy application of this principle. The process, though so pleasant in its results, is a very tedious one, and requires some skill in the operator. Of course, farmers have no time for this; it should be the occupation of a separate class, as it is in many parts of Europe.

The apparatus of which we give an engraving facilitates this operation immensely. It is nothing new. M. GAYOT, from whose article in the *Journal d'Agriculture Pratique* this sketch is taken, says that he saw it in 1837 in successful operation. It explains itself. The operator sits by the machine,

in which is placed the food, holding the fowl in his hands, and with his foot works a treadle which forces the corn through a tube into the bill of the bird. When he finds by pressing the crop that it is full, he hands the fowl to an assistant, who places it in a small box, if not to laugh at least to grow fat. It seems an invention worthy of our Yankee genius, and ought to rank with the cow-milker now so famous at the London Exhibition.

In the same article there is an account of a moveable hen house, so that the chickens can be taken to any part of a farm where insects abound, and there allowed to go at large. They will, of course, return to roost at night, and can be taken to the vicinity of the house, if that precaution is necessary against thieves of any kind. Chickens will not scratch if they can find enough to eat without, and by not allowing them to stay long in one place there will be enough food for them in the insects which every farmer would be glad to be rid of from his fields of grain. A gentleman who has tried this experiment says that it has proved most successful; the fields in which the chickens had been bore better crops, the eggs were larger, and the flesh of the fowls themselves was much improved in flavor. This method has certainly the merit of being economical, both of food and labor.

HOW TO CATCH A HORSE.

To catch a horse in a pasture is frequently no easy task. "You cannot catch an old horse with a net," and it sometimes happens that you cannot catch him with grain. Who has not chased a horse out of the pasture for half an hour, vainly hoping to catch him at every turn? At length you get him into a corner; "now I have you, old boy," you say, when presto! he makes a sudden dash and escapes you the slip again; then with arched neck and elevated tail he gives a snort and throws up his heels, his bright shoes glistening in the summer sun which is nearly melting you. This is no fancy sketch. We have all gone through such experiences. To avoid this trouble, a writer in the *Valley Farmer* recommends the following treatment:

When young horses are running to grass, give them salt occasionally, and let them fondle about it, making as little show as possible of trying to hold of them. There is nothing surer to spoil a horse forever than to run as if trying to hem him and yelling at him authoritatively, or scolding; you can see, just as well as you know, that he is out of your reach. To put on the cap sheaf, whip him severely for causing trouble, and my word for it, the next time you want to catch him, he will not listen to the voice of your charming, charm you never so wisely.

Horses learn a great deal by signs. In beginning to teach them to be caught, go toward them from the near side, slowly and cautiously, making no demonstrations at all. If the animal begins to kick off, stop, and whistle, or otherwise manifest difference, until he becomes quiet again, then proceed as before. When you are so close as to be confident he will not escape you, speak kindly to him, and hold up one hand, ready to touch him on the withers, and thence pass it along the neck until you can get hold of his head, but do not seize him with a grab, as this tends to excite fear afterward. By practising this course, using the sign, and holding up the hand when you are a little farther away each time, a horse may be taught to stop and be caught, even when in considerable glee at being caught, simply by holding up the hand and using the familiar phrase, such as *whoa boy*, &c. By a display of caution, however, watch his actions and intentions closely during his tutoring, and if at any time or from any cause, you see that he is going to kick, do not by any means say anything or hold up your hand, as the sign given and disobeyed a few times will almost inevitably prevent your making anything out of it in future."

VENTILATE THE BARN.—The New York *Evangelist* says the moisture arising from hay and grains stored in barns, increases their liability to be struck by lightning. The barns should be well ventilated after harvest. To leave a wide opening on opposite sides, when convenient, is safer than to resort to a single ventilator in the roof.

SEVEN HINTS WORTH THINKING OF.

THE New Hampshire *Journal of Agriculture*, under the above heading, gives the following sensible and timely advice:

CLEAN UP. Look out sharp for the condition of your sink drains; see that all the foul matter is properly carried off, and that every corner where fetid matter will accumulate is treated to a good coat of whitewash. It is a cheap remedy, but often saves life. Nature has kindly provided us with a warning against harm in the sense of smell. That which is hurtful, is also repulsive, consequently when the warning is given do not neglect it.

AIR THE CELLAR. In many a house the cellar is badly ventilated, and the air rushing up the stairway will almost knock you down. It is of the utmost importance that the place where the food of the family is kept, should be clean and sweet. All refuse vegetable matter, boxes, barrels, and anything under which worms and crawling creatures love to congregate, should be often removed or overhauled.

A GREAT FAULT. On some farms the barns and hog-pens are so near the house, that the odor from either or both is wafted by every breeze through all the house, and a cool draft of air is poisoned to all delicate sense of smell. A farm house ought to be of all others in the world, the sweetest and most fragrant place. The scent of apple-blossoms, of clover, of new-mown hay, of ripened fruit, are ever about it, while there is no excuse for crowding buildings together. Besides this, the wife and children should have their flower garden, and the yard about be kept scrupulously neat.

LOOK OUT FOR SHOES. Horses and cattle, when at work, must be securely shod. In the hurry of the season, a horse often goes neglected just one day too long, and gets lame, perhaps for a week, and perhaps for the season; while worse accidents often happen in consequence of neglect. Danger to life and limb is often averted by a nail put securely in its place.

KEEP AN EYE ON THE MEAL CHEST. Some farmers are forever getting out of meal in a dry time, as well as running short just when it is most inconvenient to attend to the matter. A little calculation will enable one to avoid this trouble.

A TIGHT ROOF. The sudden and heavy showers that are coming this season will disclose many a leak in roofs hitherto supposed to be secure. If the leak is where it will do no damage, lose no time in repairing; as, what is gained by the delay is generally lost many times over by increased damage.

APPLES are now dropping from the trees. If your orchard is where you cannot let the pigs in, pick up all the wormy windfalls, every day. It will pay, for every apple has the worm that does the mischief, and will produce another brood of these pests of the farm. A little attention to this thing for a few years will diminish the number of windfalls and wormy apples greatly.

A CORRESPONDENT of the *Ohio Farmer* raises peas as fodder, and finds them excellent. He cuts them when the pods are well filled, and before they begin to dry. He feeds them to his cows.



WALKS AND TALKS IN THE GARDEN.—No. V.

"No want of rain now. Such a growing time, especially for the weeds, we have not had for some years. All succulent vegetation is rampant. You can almost see the cabbage grow."

"I was once in Mr. SULLIVAN'S big corn field, in the Sciota Valley, with M. B. BATEHAM, of the *Ohio Cultivator*. The field had grown annual crops of corn for over fifty years. The crop was then rioting in luxuriance. 'What a splendid soil and climate this is,' I remarked. 'Yes,' said Mr. B., 'all you have to do here is to keep out everything that you do not want to grow. The rest will take care of itself.'"

"Standing there in that vast corn-field, with not a weed to be seen, I could not but feel the force of the remark. And it is equally true of a good garden. Keep out everything that you do not want to grow, and in nine cases out of ten you will have good crops."

"These laterals on the grape vines you do not want. Out with them. They rob the vine, and absorb sap which should go into the grapes."

"These runners on the melon and cucumber vines are not needed. Pinch them off. Shorten them in, and let the whole strength of the vines go into the fruit. Of course you must have leaves enough to elaborate the sap, but if you leave two or three ahead of the fruit it will be sufficient."

"So of tomatoes: this immense growth of shoots is not needed. Off with them. Keep out everything that you do not want to grow, and the rest will take care of themselves."

"But in such showery weather that we have had lately it is not easy to keep out the weeds. Cut them off, and the next morning they are as fresh and vigorous as ever. Nothing for it in such a case but to pull them up by the roots."

"It has been a splendid time to set out strawberry plants. Out of several hundred planted about the 1st of August, I have scarcely lost a plant. This was on ground trenched and manured for the purpose

last fall, and a crop of peas taken from it this spring."

"Amongst our old strawberry beds there was one or two beds where the plants had been allowed to run together. Wishing to have them all in rows, these were dug under and some new plants set out about the middle of August. *These have not done so well*; perhaps because the weather has not been so wet, and also because the old strawberries have pumped out a good portion of the moisture from the soil."

"There are few plants that evaporate moisture through their leaves more rapidly than the strawberry. I have known them suck out all the moisture from the soil two feet deep."

"It is not yet too late to set out strawberries. If the weather is moist, they will do as well set out this month as last, or even better."

"What would I do with the old beds?" If in rows, cut off all the runners and dig up the ground between. Some cut off the leaves of the plants that are left, but I think it is better to allow them to remain. The *Triomphe de Gand*, which has a tendency to grow too much out of the ground, should be earthed up a little. The one grand rule in strawberry culture is to cut off the runners as fast as they are formed. Allow nothing to grow that you do not want."

"So of raspberries and blackberries; allowing so many young shoots to remain is a waste of the vital energy of the plant. I would cut out all except the three or four that are needed to bear fruit next year. The old shoots that have fruited this year should also be cut out."

"The Lawton Blackberry is immensely productive and very large. But, unless it is very ripe, it is by no means a superior fruit. It is hard inside, seedy and sour. When fully ripe it is delicious."

"Dr. MINER, of Honeoye Falls, has a new seedling blackberry which is as much superior to the Lawton in quality as a Seckel pear is to the Duchess d'Angouleme. The Doctor raised it from the seed of the Dewberry, or low blackberry. HOCHSTEIN is making a drawing of it, but it will not be ready in time for the next [this] number of the *Genesee Farmer*." [We will give a full description of it next month.]

"I received a letter from my brother in the army at Corinth, the other day, saying that he should like a chance at those raspberries we seemed to be at a loss how to dispose of. The thermometer was 110° in the shade, and a couple of quarts of raspberries a day would not go amiss. However, he

does not seem to suffer for fruit. The soldiers call that part of Mississippi the 'wooden country.' There is nothing but woods for twenty miles round. He says there is an abundance of peaches, and he thinks they grow wild there. He rides his horse under a tree, and helps himself to all he can eat."

"Peaches here this season will be a good average crop—better than for several years past. Apples are also good. I hear that parties in this city are making arrangements to ship large quantities to England. I have no doubt it will pay."

"Pay?" Of course it will pay; as P—— says, the exchange alone will pay if you get nothing for the apples!"

"There will also be a good crop of pears. By the by, I was at Mr. SHELDON's, of Geneva, N. Y., the other day, and he has some of the finest old Virgalieu pear trees I have ever seen. They are over 50 feet high, and the trunks are four feet in circumference. They are loaded with fruit. His soil is a calcareous loam, and the orchard is sheltered from the prevailing winds. His pears succeed admirably. Blight does not trouble him. His Virgalieus do not crack. They are as fair as could be desired. It is a pleasure to look at them. I have no doubt that a naturally underdrained soil, like his, abounding in lime, and lying on a high side hill, well sheltered from the severe winds, with a good exposure to the sun, is just what we want for pears."

"He has some pears growing in grass, but they are no healthier than those growing in his cultivated garden, and the fruit is not as large or the growth of the trees so good. He is satisfied that the ground in the pear orchard should be cultivated."

"It is not an easy thing to determine when pears are ripe. It is not difficult to tell when they are fit to eat; but that is not the point. It is now universally admitted that nearly all varieties should be picked from the trees before they are fit to eat, and ripened in the house. They should be picked as soon as they are fully matured—not ripe. The ripening process is entirely distinct and quite different from that of growth. As soon as the fruit has ceased to derive nourishment from the tree, it should be gathered, and the ripening process allowed to proceed in a cool, dark room. The difficult point is to determine when the fruit has attained its full growth. Something can be learned from observing the change of color. Perhaps the best general test

is to pick as soon as the fruit-stalk will separate readily from the branch."

"It has been rare weather for celery. Here is some of the new French *self-blanching* kind. It grows splendidly, but does not as yet, though it is two and a half feet high, show any signs of blanching. A few of the plants have run up to seed, but this is probably owing to its being so early."

"The French 'Tree Tomato' does not seem to do much, this year, in the open air. It needs to be tested more generally before it can be recommended."

THE SOUTHERN GUM TREE.

The Sweet Gum Liquidamber (*Liquidamber styraciflua*) is one of the most common trees of the Middle and Southern States. On large trees at the South gum is found in considerable quantities,



LIQUIDAMBER STYRACIFLUA.

appearing between the bark and the wood and exuding from the cracks in the former. When first issuing from the tree it is perfectly fluid and clear and has a most agreeable fragrance. It is regarded as a styptic.

In regard to the latter quality, SOLON ROBINSON, of the New York *Tribune*, relates that when once traveling in the Southwest he was attacked with violent diarrhoea, and was so weak that he had to be carried from his buggy into the house, but was perfectly restored in a few hours by a decoction of the bark of the gum tree. He thinks our soldiers in the Southern States, where this tree abounds, have always at hand the means of arresting summer complaints.

says the largest gum trees grow in soil. He mentions one growing in a six miles from Augusta, Georgia, which, at feet from the ground, was 15 feet 7 inches in circumference, with a head broad and spreading in proportion to the trunk. The wood is very compact and fine-grained, but when exposed to the air it soon decays. It makes very poor fire-wood.

In regard to the toughness of the wood, the present war has afforded a curious instance. We give it as it is related in an exchange:

"Dr. J. W. PAGE, U. S. Sanitary Inspector, Department of North Carolina, has brought home a remarkable relic of the war: a section of a gum tree, with a 32 lb. cannon ball embedded in it. It is at present in the keeping of the New York Historical Society. The tree of which it is a section stood within 300 or 400 yards of the 32 lb. gun in Fort Thompson, from which the ball was discharged, and directly in range of the field hospital of Foster's Brigade. It was felled, and the section containing the ball cut from it, on the 10th of May, by an intelligent 'contraband.' The peculiar manner in which the ball is lodged in the tree is another point of interest, indicating as it does the resistance which this peculiar tree—the *black gum*—offers to the shock of a heavy cannon ball. The tree is proverbial in the South for its tenacious qualities, being capable, in the opinion of the darkies, of resisting even the force of lightning itself. In this instance the tree is not at all shattered by a force which would have shivered ordinary trees to atoms. The ball is simply half embedded, and the tough splinters, which it had forced in before it, have rebounded, and now clasp it to its place, as if the ball had entered from the opposite side without sufficient force to pass completely through. We should judge that this species of timber would be useful in the construction of naval vessels!"

As an ornamental tree, the liquidamber deserves a place in every collection. Though a native of the South, it is perfectly hardy in this vicinity. In the spring, when its leaves are unfolding it fills the surrounding air with their delicious fragrance; during the summer the elegantly shaped leaves, with their dark green glossy surface, are remarkably handsome; and in the autumn, when the leaves are dying off, they turn to an intensely deep purple red, more or less mixed with orange. Even in the winter, the rough bark and scraggy branches give the tree a striking appearance.



LEAF AND FLOWER.

RURAL TASTE.

EDS. GENESSEE FARMER:—It will be no designed flattery, if I say you exhibit, in your magazine, no small degree of taste on the subject of landscape gardening, and ornamental culture generally.

Rules of taste in laying out gardens and pleasure grounds cannot be easily established, that will govern all and apply to all cases. Indeed, it is almost universally admitted that

"De gustibus non disputandum est."

There are, however, some obvious principles that will be recognized by many as essential, in the elaboration of plans for beautiful pleasure grounds. The grand result to be attained, is to produce the most pleasing effect upon a given plat or plantation and the skill and taste is exhibited by making the most of the material afforded, upon which to operate—whether the situation be best adapted to the picturesque or graceful style of ornament.

I do not propose, at present, to write a complete essay upon rural taste or ornamental gardening, but simply to make a few suggestions for the consideration of yourself and readers; and I have been led to this by frequently observing violations of what seem to me the principles above mentioned.

In ornamental pleasure grounds, in all situations there are necessarily laid out numerous roads and walks, which, of course, vary according to the natural surface of the ground. *Utility* in their construction, as in all improvements for ornament should be regarded as an important element, and whatever may be decided, as to their width or adaptation to the ground through which they are constructed, *they should have no termination*—that is, they should lead into some other avenue, or enable the traveler to reach the point from which he departs without being compelled to retrace his steps, or pass over the same ground to return, and they should be so constructed as to appear to be the most feasible route to reach a given point, and give most pleasure in the attempt.

Mathematical precision in their construction is now almost universally considered as in bad taste, and much grace may be added by such curves as are rightly adapted to the surface of the ground—provided utility be not thereby materially sacrificed. Where no pecuniary gain is expected, direct lines in avenues and walks are not to be tolerated.

Lawn trees and shrubbery constitute an important feature in fashioning the landscape, and care should be taken to place them in situations calculated to give most pleasure in viewing them. The grosser and less delicate should stand more remote from the frequented avenues, and the more rare and attractive placed where closer inspection of them can be made. In general, flowering shrubs and trees should be near, so that the beauty of their foliage and flowers can be readily examined, while majestic forest trees, intended to adorn the plantation by their size and figure, should stand where the vision can take in the whole contour, without the effort necessary for minute, close or critical examination.

This remark will apply, in a considerable measure, to the position of plants. And while I speak of them, especially such as are calculated for show in flowers or foliage, I must be excused if I cross the taste of some good people who figure herea-

on no small scale, in ornamental gardening. Often observe beautiful beds of plants and s—the rarest and most attractive—planted in middle of a large grass-plat, at such a distance any walk or avenue as to prevent the enjoyment of them, for their beauty or fragrance, with-amping on the grass, while at every turn we be posted a card, “Please keep off the grass.” absurd this really is! To forbid the near ch to a well arranged, delicate, sweet cluster vering plants, where they are almost entirely a their intended effect, for want of a close of them.

re should always be constructed an avenue g to such a bed of plants, that a near approach m may be easily made. Besides, *utility* re- such access, for oftentimes delicate kid slip- ould be soiled in walking over the bedewed when a clean gravel walk would be conve- and safe.

elers have often noticed this great defect in ublic grounds at our National Capital, and fashionable resorts in the different States; n perhaps few take the trouble to consider occasions one of the most forbidding features a grounds.

le from evident *utility*, the graceful walks ind among flower-beds and shrubbery are an te ornament, and add much to the effect to duced. Then, should not flower-beds always dered by them?

, who can enjoy the gorgeous beauties of a assorted and rare collection of tulips or hya- or appreciate the delicious sweetness of a carnations or picotees, when they have no access to them? If they are not *forbidden* alk upon the grass,” it is not always conve- to cross a lawn for the object; and sometimes stance causes a failure to attract the attention visitor.

ne painting would be little noticed and se- ot much admiration, if placed at such a dis- from the beholder as to prevent a fair view drawing and blending of colors; and the at- veness of the pictre is often much enhanced e character of the frame that surrounds it. ould a connoisseur judge of the excellence of tiful piece of embroidery without being suffi- y near to distinguish the prominent features

ems to me, then, just as absurd to form a -bed remote from some avenue giving access as to place before a guest a dish of choice meats, without a spoon or other utensil that enable him to gratify his taste. W.

ester, Aug. 15, 1862.

CH ORCHARDS IN OHIO.—A correspondent of wa Homestead has just returned from a visit o, and tells such wonderful stories of the crops aches in Warren county that his neighbors believe him. He thinks that county can sup- e entire North with peaches this year. He s to two farmers that have 121 acres of peach Hundreds of others have great orchards, ese are the largest.

HORTICULTURAL ITEMS FROM FOREIGN JOURNALS.

—M. D’ARIELES, of the *Revue Horticole*, thinks that it is not a good plan to put pears in tight boxes, but that it is better to spread them upon shelves or tables, in a cool room; and that wrapping them in paper will only do for fruit which is entirely sound and which does not require to be examined often. He says, too, that in gathering summer and early-fall pears, the best fruit can be taken off before it has quite reached maturity, and that the small ones will in this way, having all the sap to themselves, become larger and better. This will only answer for very early fruits. With late ones the experiment would not succeed, as with them both their quality and preservation depend upon their being gathered at precisely the proper time.

—M. NAUDIN, in his report of the Exhibition of the Central Society of Horticulture, tells an anecdote of the Emperor, who last year visited the Exhibition at Fontainebleau, and was very much surprised not to see his favorite flower, the carnation. “Why,” asked he, of one of the principal exhibitors, “have you no carnations among so many flowers?” “Sire,” was the reply, “carnations are not fashionable; no one cultivates them.” This year they have become favorite flowers.

—“Surprise de Jodoigne” is the name of a new peach, a seedling grown by M. XAVIER GREGOIRE, of Jodoigne, Belgium. The *Revue Horticole* quotes M. BIVOET, Secretary of the Royal Commission of Pomology of Belgium, who has made a long report on its merits. At the close, he says: “This exquisite and remarkable peach resembles the peach in its downy skin and its stone, the apricot by the color of its flesh and its exterior, and the nectarine in its flavor.”

—The *Yucca Gloriosa Longifolia* is spoken of in the *Revue Horticole* as one of the most beautiful of its kind, and presenting for ornamentation two advantages, being very beautiful in form and having a great abundance of flowers. Another variety is also mentioned; the flowers are yellow—white or sulphur, and the stalk is deeply colored, almost purple.

—M. BARRAL, in his letter from London, says that the English floral exhibitions are much more beautiful than those in France, and much better attended; but then, he adds, they are truly *fetes*—the ladies are exquisitely dressed, the music good, and the whole scene extremely brilliant.

Ladies' Department.

ORIGINAL DOMESTIC RECEIPTS.

Contributed to the Genesee Farmer.

In giving our usual receipts we have had both this month and last our sick soldiers in view, and hope that some of the ladies who are cunning in the art of cookery will remember them too. That raspberry wine and blackberry syrup—for the making of which we gave such plain directions last month—would be particularly acceptable to the fevered lips of the wounded in the Virginia hospitals. Marmalade and jars of nice pickles would render the dry bread which many are now obliged to eat more palatable. Those who have an abundance of tomatoes can put them up in stone jars as well as in the more expensive cans, and they will be fully as acceptable to the brave men who have suffered so much for their country—sufferings that those of us who stay at home know nothing of. There was, at one time, an overplus of hospital dainties; but that was before the fighting actually commenced; now they are in need of those very things which were then wasted. The time has now come when anything that is sent will be appreciated, and we hope that the want of those luxuries which we enjoy so plentifully at home will not long be felt by the inmates of our hospitals, now that their wants are known.

PICKLED PEACHES.—Take a peck of peaches—wipe them carefully. Cook them with four pounds of sugar, one quart of vinegar, one ounce of cinnamon and one of cloves.

The *California Farmer* suggests to all who are fond of a “dish of greens” to try the clippings taken from the grape-vines. It is said that they are esteemed by some better than spinach, mustard, or any other article.

SPICE CAKE.—One tea-cup of molasses, one of sugar, one of butter, three and a half of flour, one cup of sour milk, four eggs, one teaspoonful of saleratus, one of cinnamon, half a teaspoonful of cloves and the same quantity of nutmeg.

ANOTHER WAY.—Pare and halve your peaches, and to five pounds of fruit allow two pounds of sugar and a pint of vinegar, with spice to your taste. Cassia buds are often used as a substitute for cinnamon. Plums may be pickled in the same way.

APPLE MARMALADE.—Break up four pounds of loaf sugar. Put it into a preserving kettle, and pour on a quart of cold water. When the sugar has melted, stir it. Set the kettle over the fire and let it boil for a quarter of an hour, skimming it thoroughly. Have ready four pounds of apples, pared, cored and sliced. Put them into the syrup, adding the grated rinds of four large lemons. Let it simmer, stirring it constantly until the apple is entirely dissolved and forms a smooth mass. Then add the juice of the lemon. Boil very fast, continuing to stir it until it becomes a thick marmalade. It will generally require simmering an hour and boiling fast half an hour. When it is done put it, while hot, into jars, corking and sealing them closely. This is the best substitute for orange marmalade.

CREAM BISCUIT.—One pint of thin cream, two flour enough to make it as stiff as pound-cake. small cups.

PUFFIT.—One cup of sugar, one cup of butter, eggs, one pint of milk, three pints of flour, two tins of cream-tartar, one of soda, and a little salt in a loaf like cake. Serve when hot for breakfast.

TOMATOES.—There is no difficulty in preserving tomatoes during the winter, and enjoying them as in January as in August. It is only necessary to boil thoroughly, and put them up while hot, sealing so that they shall be air tight. If tomatoes do not before the frost comes, cut off the stalks on which the green fruit and put them in a cellar, hanging with the tops down, and they will gradually ripen.

PEACH LEATHER.—To each pound of peaches add a pound of sugar. Mix them together, and put them in a kettle with just water enough to keep them from sticking. Pound and mash them with a wooden beater, then boil them three hours or more, skimming and stirring them nearly all the time. When done, spread on dishes, and set them in the sun for three or four days. Finish the drying by loosening the leather from the dishes and setting them in an oven moderately heated.

HINTS FOR CLEAR STARCHING.—Collars, undershirts, handkerchiefs, of very fine muslin or lace, will much squeezing or rubbing when washed. They may be made perfectly white and clean without either by the following process: Rinse them carefully through water, then soap them well with white soap, place them on a dish or saucer, and cover with water; place them in the sun. Let them remain two or three days, and then wash the water frequently and turning them. Once a week take them out, rinse carefully, soap, and place in water. The operation is a tedious and rather disagreeable one; but the finest embroidery or lace can be made perfectly white, and is not worn at all, where, in the usual washing, it would be very apt to tear. When washed, rinse and starch in the usual manner.

PICKLED CUCUMBERS.—However numerous may be the varieties of fancy pickles in the store-room, cucumbers will retain an honored place—provided they are not too soft and brittle. In order to have them so, it is only necessary to follow a few simple directions: Put the cucumbers—the smaller the better—into a jar, placing a layer of salt between each layer of cucumbers, and a little alum. Over the whole put a cloth, letting it lie closely on the last layer. Every two or three days move this cloth, which will be wet with the brine. Remove it and replace it until the greenish matter is thoroughly extracted. In this way you can keep the cucumbers in winter, only pickling a few at a time, as they become soft by lying in vinegar. When you wish to pickle them, wash them into a brass kettle with vinegar enough to cover them, and let them simmer, but never come to the point until they are sufficiently cooked. Many cooks say that they lose their cucumbers while lying in vinegar; there is no difficulty in keeping them if the cloth which covers them is removed often enough and kept moist. Mangoes should never be allowed to boil in the vinegar, but cooked in the same way as cucumbers.

Young People's Page.

THE TALENTS.

read of the servant who hid in the earth
his master had given,
y diligent use, to redouble its worth,
ght to have faithfully striven?

you have talents: God gave them to you,
ill surely require them again.
e not to waste them; if ever so few,
m not have been given in vain.

speech; then remember to watch your words well,
them be gentle and kind;
em a small matter, but no one can tell
mfort a word leaves behind.

time. Every minute and hour of the day
by your Father in Heaven,
ste to improve, ere it passes away,
ent so graciously given.

fluence, too, though it seems very small;
greater or lesser degree,
st the improvement and comfort of all
om you may happen to be.

child who in earnest endeavors to live
eir of eternity ought,
ent example a lesson may give,
by words he could never have taught.

sider the talents entrusted to you,
ay they be duly improved;
service be hearty and free, as is due
hildren so greatly beloved.

YOUR MARK.—CHARLES and ROBERT were two
o went to their good grandfather's place in the
It was a beautiful farm, with broad, green
s and great shady trees, and the hay-fields were
strawberries, and the pastures were covered with
nd lambs. The grandfather was a kind old man
fond of children, and he let the boys do pretty
they pleased. And so CHARLIE trampled down
deal of grass in pursuit of flowers and berries,
sed the sheep and lambs, just for the fun of see-
n run, until they became frightened whenever
w him, and one poor little lamb, when he saw
behind him, ran off in such great alarm that he
stop to see where he was going, and he fell from
rock and was killed. One day CHARLIE saw a
dbreast with a worm in her bill which she was
to feed her little ones, and he caught up a stone
ew it with all his strength at the poor little
and she fell to the ground, and when ROBERT
er up she was dead. ROBERT was a kind-hearted
d he made the pretty robin a grave under a wild
sh; and all night long he heard the little hungry
o in the elm tree calling, "Mother! mother!" but
er came to feed them any more.

There was a beautiful spring under an oak tree in one
of the meadow, where the two boys used often to
the weather was warm, and when their visit was
d their clothes and playthings were all packed for
ROBERT planted a lily by the side of the spring;
he last thing he did before he set out for the sta-
the two boys were walking slowly along, for there
enty of time before the train would come, and
nds were full of fruit which their grandfather had
them when he bade them good-bye.

at were you doing there by the spring?" asked
e of his brother.

"I was setting out a lily, so that grandfather might
see it sometimes, and have something to remember me
by when I am gone."

"Nonsense!" replied CHARLIE. "There's something
to make him remember me," and he lifted a large stone
from the wall, and aimed it at the little mound on the
margin of the spring. It did not touch the lily, but it
sank into the soft earth by its side, and the beautiful
green moss that grew there was ashamed of it, and crept
round and leaned over it, and finally covered it up; so
that in a few years it looked like a green velvet cushion,
and not like a stone. But ROBERT's lily grew and blos-
somed a great many years, and made the air sweet with
its fragrance, and the mowers were careful not to cut it
down. Now, which do you think you are planting—
stones or lilies?—*Springfield Republican.*

FARMERS' BOYS.—In the wide world there is no more
important thing than farmers' boys. They are not so
important for what they are, as for what they will be.
At present they are of little consequence too often. But
farmers' boys always have been, and we presume always
will be, the material out of which the noblest men are
made. They have health and strength; they have bone
and muscle; they have heart and will; they have ambi-
tion and endurance: and these are the materials that
make men. Not buckram and broadcloth, and patent
leather and beaver fur, and kid-gloves and watch-seals,
are the materials of which men are made. It takes bet-
ter stuff to make a man. It is not fat and flesh, and
swagger and self-conceit; nor yet smartness, nor flip-
pancy, nor foppery, nor fastness. These make fools, not
men; not men such as the world wants, nor such as it
will honor and bless. Not long hair, nor much beard,
nor a cane, nor a pipe, nor a cigar, nor a quid of tobacco,
nor a glass of beer or brandy, nor a dog or gun, nor a
pack of cards, nor a novel, nor a vulgar book of love and
murder, nor a tale of adventures, that makes a man, or
has anything to do with making a man. Farmers' boys
ought to keep clear of all these idle, foolish things.
They should be employed with nobler objects. They
have yet to be men of the clear grit—honest, intelligent,
industrious men.—*Valley Farmer.*

"IF YOU PLEASE."—When the Duke of Wellington was
sick, the last thing he took was a little tea. On his ser-
vant handing it to him in a saucer, and asking him if he
would have it, the Duke replied, "Yes, if you please."
These were his last words. How much kindness and
courtesy is expressed by them! He who had commanded
the greatest armies in Europe, and was long accustomed
to the tone of authority, did not despise or overlook the
small courtesies of life. In all your home talk, remember,
"If you please." Among your playmates, don't forget,
"If you please." To all who wait upon or serve you,
believe that "If you please" will make you better served
than all the cross or ordering words in the whole diction-
ary. Don't forget three little words, "If you please."

MAXIMS OF ORDER AND NEATNESS.—Perform every ope-
ration in proper season. Perform every operation in the
best manner. Complete every part of an operation as you
proceed. Finish one thing before you begin another.

Miscellaneous.

PUNS ON NAMES.—When Dr. Goodenough preached before the House of Lords, a wag remarked:

"Tis well enough that Goodenough
Before the Lords should preach;
For sure enough, they're bad enough
He undertakes to teach."

The following is a lively and spirited pun:

At a tavern one night,
Messrs. More, Strange and Wright,
Met to drink and and their good thoughts exchange.
Says More: "Of us three,
The whole will agree,
There's only one knave, and that's Strange."

"Yes," says Strange, rather sore,
"I'm sure there's one More—
A most terrible knave and a bite,
Who cheated his mother,
His sister and brother."

"Oh, yes," replied More, "that is Wright."

FONTENELLE.—This distinguished author stands out among writers for having reached the extraordinary age of a hundred years. It was believed of him that he never truly laughed or cried in the whole course of his existence. The following characteristic anecdote is told of him: One day a certain bon vivant Abbe came unexpectedly to dine with him. The Abbe was fond of asparagus dressed with butter, for which Fontenelle also had a great *gout*, but preferred it dressed with oil. Fontenelle said for such a friend there was no sacrifice he would not make; the Abbe should have half the dish of asparagus he had ordered for himself, and, moreover, it should be dressed with butter. While they were conversing thus together, the Abbe fell down in a fit of apoplexy; upon which Fontenelle instantly scampered down stairs, and eagerly called out to his cook: "The whole with oil! the whole with oil, as at first!"

THE COW AND THE RAILROAD.—When George Stephenson, the celebrated Scotch Engineer, had completed his model of a locomotive, he represented himself before the British Parliament and asked for the attention and support of that body. The grave M. P.'s looking sneeringly at his invention, said: "So you have made a carriage to run only by steam, have you?" "Yes, my Lords." "And you expect to run on parallel rails, so that it cannot get off, do you?" "Yes, my Lords." "Well, now, Mr. Stephenson, let us show you how absurd your claim is: Suppose, when your carriage is running upon those rails at the rate of twenty or thirty miles an hour—if you are extravagant enough to even suppose such a thing is possible—a cow should get in the way. You can't turn out for her—what then?" "Then 'twill be bad for the cow, my Lords!"

A COUNTRYMAN sowing his ground, two smart fellows riding that way, one of them called to him, with an insolent air: "Well, honest fellow, it is your business to sow, but we reap the fruits of your labor." To which the countryman replied: "It is very likely you may, for I am sowing hemp!"

HAMS.—"Gripps, I understand you have a superior way of curing hams. I should like to learn it." "Well, yes; I know very well how to cure them, but the trouble with me just now is to *pro-cure* them."

SOLDIERS MUST HAVE SOUND FEET.—The late Major THROP, in an article written for the *Atlantic Monthly*,

A soldier needs, beside his soldierly drill,
1. Good feet.
2. A good stomach.
3. And after these comes the good head and the heart.

But good feet are distinctly the first thing; without them you can not get to your duty. If a comrade horse, or a locomotive, takes you on its back to the you are useless there; and when the field is lost, you not retire, run away, and save your bacon.

Good shoes and plenty of walking make good feet; man who pretends to belong to an infantry corps ought always to keep himself in training, so that at moment he can march twenty or thirty miles without feeling a pang or raising a blister.

A Captain of a company who will let his men march with such shoes as I have seen on the feet of some fellows in this war, ought to be garroted with strings, or at least compelled to play Pope and was feet of the whole army of the Apostles of Liberty.

If you find a foot-soldier lying beat out by the side, desperate as a sea-sick man, five to one his are too high or his soles too narrow or too thin, shoe is not made straight on the inside, so that the toe can spread into its place as he treads.

I am an old walker over Alps across the water over Cordilleras, Sierras, Deserts and Prairies at last I have done my near sixty miles a day, without discomfort—and, speaking from large experience, and with full recollections of the suffering and death I have known for want of good feet on the march, I say to every soldier: Trust in God; but keep your shoes easy.

WEDDING RINGS.—One of the most whimsical institutions was used by the Bishop of London in 1753 had been married three times. On the fourth marriage he placed as a motto on the wedding ring:

"If I survive
I'll make them five."

One device of French jewellers is forming a model of the arrangement of stones around the hoop—the first letter of the name of each stone forming an amatory word when combined, as in the following examples:

R-uby.	L-apis Lasuli.
E-merald.	O-pal.
G-ar-net.	V-erd Antique.
A-methyst.	E-merald.
R-uby.	M-alachite.
D-diamond.	E-merald.

A HINT FOR THE DIVORCE COURTS.—A Roman senator about to repudiate his wife, among a variety of questions was asked by her enraged kinsman: "Is your wife a sensible woman? Is she not handsome?" In answer to which, slipping off his shoe, he held it up, asking them: "Is not this shoe a very handsome shoe? Is it not quite new? Is it not extremely well made?" How, then, is it that none of you can tell me what pinches?"

An anecdote is related of a running footman (rather half-witted), who was sent from Glasgow to Edinburgh to two doctors to come and see his sick master. He was interrupted on the road by the inquiry: "How is your master, now?" "He's no dead yet," was the reply, "but soon be, for I'm fast on the way for two Edinburgh doctors to come and visit him."

HAIL AND RAIN.—"Where do you hail from?" asked a Yankee of a traveler. "Where do you rain from?" "Don't rain at all," said the astonished Yankee. "Neither do I hail—so mind your own business."



REPORTS ON THE WEATHER FROM JULY 15TH TO AUGUST 1862.—The temperature is the great moving power; much or too little heat, ruinous. With higher heat, evaporation or moisture in the atmosphere, and vapor to fall in rain. For July the temperature at the mean for 25 years, 70.5°; the first half rather above the mean, and the last half a little below, or 69.8°. The last half the highest heat was only 83° on the 26th and the lowest at 7 A. M. was 61° on the 26th.

Wheat harvest was later than usual. Most wheat was cut in the third week of July, but the rains in the last ten days prevented the cutting of wheat till the 26th, that splendid day for harvesting, on which a great amount was cut.

The rain of the month measured 4.13 inches, more than four-fifths of it in the last half. Vegetation was rapid. Under showers, rare before, occurred after the 19th.

In Maryland and Southern Illinois the wheat was harvested about the middle of the month, and in the quite west of that State had begun early in the month, in Lat. 36°.

Good health prevailed, although there had been some lightning for two months.

August began with pleasant weather, and has given us a fair share of it to the middle of the month. The harvesting of wheat, begun on the last day of July, chiefly, in this section, was rapid, and in a fortnight the crop, a fine crop, was secured. The farmers felt greatly cheered; no blight, no rust, no midge maggots devouring the young wheat in the heads, but its fields fully ripe, and of it standing erect, and the machines operating with mighty power. It was a time of gladness and consolation.

The rain in the fortnight was 1.31 inch, rather moderate, enough, as so much fell in the preceding half month. Under showers became more frequent, and some parts seemed to have a surplus of electricity.

The average heat of the first half of August is 72.9°, or above that for 25 years. The highest, 90° on the 4th and the lowest, 60° on the 14th. The 8th and 9th were the hottest days, and much hotter at the south, and the heat continued.

The growth of potatoes, Indian corn, &c., rapid, and future promising. Apricots, apples, early pears, are in the market; green sweet corn plenty, tomatoes, &c. The voice of plenty is heard on every side.

AMERICAN MILKING MACHINE IN ENGLAND.—An English gentleman writes us, asking if the American Milking Machine shown at the Great International Exhibition is as valuable as it is represented. A few years since we saw the machine, and were not very favorably impressed with its practical utility. It seems to have created quite a demand in England, and we understand the patent right has been sold for a large sum.

"WHAT VARIETY OF WHEAT SHALL I SOW?"—This is a question very generally asked at this season. Many new varieties have been tried in this section, but farmers are falling back to the old kinds. When the land is in a high state of cultivation, and early, the Soules (white) is the favorite; and where Soules is not likely to succeed, the Mediterranean is sown. The latter is early, and generally escapes the midge. It has, too, greatly improved in quality, though still much inferior to the Soules. The "Lambert Weevil-Proof" is in quality about midway between the Mediterranean and the Soules. Some like it very much, while others have abandoned it. It has rather a weak straw and is apt to fall down. The Dayton has been quite popular in some sections, but this also has been given up by some who have tried it. As yet, we know of nothing better than the Soules—nothing earlier than the Mediterranean. We would, however, advise farmers to sow an acre or so of the new kinds and give them a fair trial.

FREE FARMS IN IOWA.—The Iowa papers are calling the attention of persons wishing to avail themselves of the Free Homestead law, to the government land in that State. The *Sion City Register* says, in that district alone there are 4,000,000 acres of Government land, as choice as any in the State. It is in the neighborhood of a railroad. The *Fort Dodge Republican* says there are 50,000 acres of what are termed Railroad Lands, in that district. They are owned by the Government and are held at \$2.50 per acre. Under the Homestead law, a pre-emptor can locate 80 acres of this land, which is equivalent to 160 acres of ordinary Government land. A correspondent of the *Homestead* says there are 40,000 acres in Humboldt county subject to pre-emption after the first of next January. We think those designing to avail themselves of the Homestead law would do well to visit Iowa. It is destined to be one of the first agricultural States in the West.

TRAINING CURRANTS.—The *Maine Farmer* says: "Currant bushes can be trained and made to grow in any desired form, either as a bush, tree, or upon a trellis. If trained as a bush, only three, or at most, four, shoots should start from the ground at once. [Better train them on a single stem.] After bearing two years, allow one or two strong shoots to start from the bottom, to take the place of one or two of the old ones, which should be cut away. One shoot may be allowed afterward to grow every year, to replace an old one; and thus the plant will be entirely renewed every three or four years."

GOOD APPLE TREES.—The *Maine Farmer* says: "Long experience has shown that an apple tree that stands near an old wood-pile always grows thriftily and bears an abundance of apples, as the fine, slowly-decaying chip-dirt forms an excellent manure for apple and other fruit trees."

THE SORGHUM BUSINESS.—Our western exchanges are filled with glowing accounts of the sorghum business. It is thought that enough sugar and molasses will be produced in several of the Western States for home consumption.

CONSUMPTION OF WOOL FOR THE ARMY.—It is estimated that a complete outfit for an American soldier requires 25 lbs. of raw or unmanufactured wool. From the excessive wear and tear in time of war, and losses from various causes, it is thought that on an average each soldier requires three outfits per annum.

At the lowest estimate we shall soon have over a million men in the field. The annual consumption of wool for army purposes, therefore, will amount to the enormous quantity of *seventy-five million pounds!* According to the census of 1850, the product of the whole United States amounted to only fifty-one million lbs.! It is now undoubtedly much larger—perhaps double—but at all events this extraordinary demand for wool, especially for the coarser grades, cannot fail to insure high prices.

RIPENING GRAPES.—The *Country Gentleman* says, a horticulturist in New Bedford—where the sea winds are often injurious if trained to a common trellis—has succeeded admirably in ripening his grapes by training them to a low, nearly level trellis, under which is placed quite a quantity of rocks, so that the grapes are but a few inches above the rocks. This gives them protection from the winds, and the reflection from the stone causes them to ripen their fruit a fortnight sooner than when in a different position.

BLACKBERRY WINE.—At the last meeting of the N. Y. Farmers' Club, Mrs. HAM presented a sample of blackberry wine made as follows: 1 quart of juice, 2 quarts of water, 3 lbs. of sugar, fermented in casks and drawn into bottles, corked and sealed, and kept two years. It was well liked. A blackberry cordial for sick soldiers was also recommended, to be made as follows: 1 quart of juice, 1 pint of water, 1 pound of sugar, spices; mixture allowed to boil; when cool, add half pint brandy.

A GOOD CLIP.—MR. CHRISTOPHER WINNE, of Perinton in this county, informs us that he sheared from 132 sheep 944 pounds of wool, well-washed and clean, or about 7 pounds 2½ ounces each. The sheep were ordinary Merinos, most of them two-year old wethers. They were well fed last winter, having, in the language of Mr. W., "all the grain they could eat." Mr. W. thinks the "State of New York never beat it." Is this so?

FROST AND WORMS.—R. G. PARDEE, of New York, says: "The worms were troublesome in my garden last year, and I watched for the last day that I could spade it up before freezing. That night the newly-spaded earth froze solid, and finished off the worms effectually. I have no doubt it saved my crop of grapes this year."

SORGHUM WINE.—We have received from the Rev. A. MYERS, of Springfield, Ohio, a sample of his wine made from Sorghum. By referring to our advertising columns it will be seen that Mr. M. has published a treatise on its manufacture, &c.

The *Genesee Farmer* still continues its long career as a cheap useful agricultural periodical. The present number has an interesting table of contents, and is very well illustrated in the horticultural department, which is of special interest.—*Kingston (C. W.) Daily News.*

Agricultural Items.

PREPARED EXPRESSLY FOR THE GENESEE FARMER

AN "Ordnance Plow," it is said, has been patented in Waterloo, N. Y., for the benefit of farmers in the Border States, who are liable to attacks from guerrillas. It resembles an ordinary plow, and can be used as such, but the beam is peculiar, being cylindrical or conical shaped, and provided with a bore of sufficient caliber to throw a shot of from one to three pounds weight. It can be sighted and manœuvred almost as conveniently as artillery on wheels.

MR. BIRDSELL, of Mendon, in this county, informs us that the best crop of wheat in that town, this year, was raised on a field from which a crop of clover was mowed the year before. The sod turned over in a week or two after the wheat sown in the fall without again plowing. The surface was cleaned and mellowed by the use of the horse-drawn cultivator, harrow, &c. The wheat was put in with a drill.

HARPER & BROTHERS, of New York, have in press a new work on Wine Making, by Mr. HARASZTHY. Mr. H. was appointed a year or two ago, by the Governor of California, to visit Europe for the purpose of collecting varieties of the grape adapted to that State, and to obtain information in regard to its culture. His book will be looked upon with interest.

MR. ATHERTON's herd of Shorthorns was sold at auction on the 15th of July. Forty-two animals were sold at an average price of \$375. Mr. CORNELL, President of the N. Y. State Ag. Society bought a two year old heifer for \$500. At this sale, three Kentucky bred Shorthorns imported by Mr. ALEXANDER, sold for \$305, \$315 and \$150.

In an Essay "On Recent Improvements in Hay-making," by ROBERT SMITH, commended by the Royal Agricultural Society of England, the common revolution in American hay-rake is highly spoken of. It is being extensively introduced into England. He says it will gather two acres per hour.

MR. SANDAY, of Yorkshire, Eng., has one of the finest flocks of Leicester sheep in the world. In fact, he is the Leicester what JONAS WEBB is to the South Down. At his last auction sale, 72 rams brought an average of \$132 each. One two year old ram brought \$700.

MR. CRIPPEN, of Coldwater, Mich., lost his Shorthorn bull, Wellington, last winter. He was found dead in a stall in the morning, and no cause of his death could be discovered. He was the only animal in the State with Grand Turk blood in his veins.

R. G. PARDEE, the author of a book on the Strawberry, at the last meeting of the New York Farmers' Club, showed his list of six strawberries was, Wilson, Hooker, Howell, Longworth's Prolific, Burr's New Pine, and Triumphant Gand.

At the late Fair of the Royal Ag. Society of England Mr. FOWLER sold \$70,000 worth of his steam plows! The agricultural implement makers of England are reaping the harvest out of the visitors at the International Exhibition.

The Great International Exhibition is estimated to have added a million of visitors to the population of London.

ce of fruit in Covent Garden, London, July 19th, 1875: Cherries, 25 cts. to 50 cts. per lb.; goose-berries, 12 cts. per quart; red currants, \$1.75 to \$2.00 per sieve; black currants, \$1.50 to \$1.25 per sieve; raspberries, 12 cts. to 25 cts. per lb.

BEATTIE, of Markham, C. W., has made another season of Shorthorn and Ayrshire cattle and Leicestershire sheep. He left Annan, Scotland, with them, April 1st, and was over nine weeks on the passage to Quebec. They arrived in good condition.

From Illinois, where immense quantities of peaches are raised for Chicago, Cincinnati and other cities, the *Honest John* is said to be the earliest, best and most productive peach.

W. & BROS., of Punta de los Reyes, near San Francisco, who have a dairy of seven hundred cows, have just weighed 1,779 lbs. It was sold in San Francisco at 25 cents a lb., and brought \$444.75.

W. & BROS. has just been presented with a medal by the Agricultural Society of Amiens, for the services which it has rendered to agriculture by improving the breed of sheep.

Col. J. B. of Maine the present season has greatly improved that of any former year.

Inquiries and Answers.

Q. BY WH. AT.—(A Young Farmer.) There is 10 per cent. of ash in wheat grain. The ash itself is essentially of phosphates,—phosphate of potash, phosphate of magnesia and phosphate of lime. About 10 per cent. of the ash is phosphoric acid. Potash amounts to one-third of the whole ash; the magnesia to rather more than one-third of the potash; and the lime to about one-third of the magnesia. We put it in this form that it may be the more easily remembered.

A. Must bear in mind, too, that by far the greater part of the ash is in the bran. One hundred lbs. of wheat contain only about 12 ounces of ash; while 100 lbs. of bran contain 7 lbs. of ash! There is also more phosphoric acid in the ash of bran than in the ash of wheat.

Q. BY H. OF HOPS.—Do you know of any work that will tell the culture of the hop? If so, what is the price and where can it be obtained? If there is no such work, perhaps you or some of your able correspondents will write an article on hop culture that would be very valuable to your correspondent, and might be of use to your readers as would like to try their luck in growing. How would it do to get roots or cuttings of common hops, such as the farmers grow for family use? If dug in the autumn, would they keep through winter and germinate in the spring? If so, what is the best mode of preservation? There appears to be a difficulty in procuring cuttings from established hop yards in this city, which perhaps is not the case elsewhere.—JONES, *Ivanhoe, Hastings Co., C. W.*

A. What are the distinguishing marks between the male and female hops?

A. Some of our experienced correspondents answer as follows:

MILL.—(WM. BENNETT.) HICKOK'S machine is an excellent one. It grinds the apples and presses out the juice speedily and with little labor. It can be worked by hand or horse power.

ENDLESS HORSE POWER THRASHING MACHINE.—(JOHN TURNER.) There are many excellent machines manufactured in this State. It is difficult to say which is the best. We may safely say that if you get one either of EMERY BROS. or WHEELER, MELICK & Co., of Albany, or of WESTINGHOUSE & Co., Schenectady, you will have a machine that will suit you. Come to our State Fair and examine the various machines for yourself.

WHITEWASH.—I have some picket fences that I want to whitewash. Will some one who has had experience give us a receipt in the *Genesee Farmer* for making it, so that it will stand the weather?—IRA L. SPRAGUE, *Ontario Co., N. Y.*

Literary Notices.

NORTH AMERICA. BY ANTHONY TROLOPE.

At this time the travels of an Englishman in this country have a peculiar interest. Mr. TROLOPE'S book would have been welcomed at any time, for, aside from his own reputation as a novelist, an account of this country by a son of Mrs. TROLOPE, who made herself so notorious here, would be worth reading. He came here last autumn, and the whole tone of the book is exceedingly fair. In speaking of the war he takes the Northern side, and appreciates the patriotism which has brought such an immense army into the field. He says of our social habits what all foreigners do—that women are treated with a chivalrous respect, which they neither return or appreciate. He speaks most enthusiastically of Boston, and not so much so of New York. In his conclusion, he says that he has undoubtedly offended his friends on this side of the water, and then addresses Americans as "the thin-skinned," which is the only really offensive thing in the book. Of course, in our relations to Great Britain he takes the English view.

HEALTH: Its friends and its Foes. MUSSEY. Boston; GOULD & LINCOLN.

Dr. Mussey is a warm advocate of a vegetable diet. His book opens with an attack on corsets, tight lacing and hoops, which, with alcohol and tobacco, have his unqualified condemnation. His attacks upon the habits which he considers abuses of health, are much warmer than his advocacy of those which tend to preserve it. The chapters on Bathing, Exercise and Ventilation are short. There are some very good remarks on dyspepsia, and some facts in regard to epilepsy, which, if they are facts, give great hope that this terrible disease may be alleviated, if not entirely cured. The closing chapter, entitled, "My own Experience," shows that he practices as well as preaches.

RAVENSHOE. By HENRY KINGSLEY, author of "Geoffrey Hamlyn," &c.

A very interesting novel—well written, but with an elaborate and rather intricate plot. Still, as the interest is sustained to the close, this defect is not felt; and as each character is clearly drawn and well-defined, there is no confusion, but you mingle with them all, and interest yourself in their affairs as though it was the most natural thing possible for a man to discover that he has no right to a name which he has always borne, and that servant and master must change places. The attempted transformation of a gentleman into a groom, and of a groom into a gentleman, is well delineated—the latter change being the most successful.

THE BOOK OF DAYS. Part V. J. B. LIPPINCOTT & Co., Philadelphia; W. & R. CHAMBERS, Edinburgh.

We have received another part of this curious book. Its contents are a medley of much that is worth knowing on all kinds of subjects. A long account of playing-cards, and how to tell fortunes with them; a sketch of HANDEL and one of SIR JOSHUA REYNOLDS; an article on funeral gardeners, and some anecdotes of extraordinary marriages, forms part of the variety of subjects which enliven the month of February.

Agricultural Exhibitions for 1862.

NATIONAL.

Am. Pomological Soc. Boston.....	September 17—19
National Horse Show, Chicago.....	" 1—13
World's Horse Fair, Williamsport, Pa.,.....	" 2—5

STATE, PROVINCIAL, &c.

Vermont..... Rutland.....	September 9—12
Ohio..... Cleveland.....	" 16—20
Kentucky..... Louisville.....	" 16—20
Canada East..... Sherbrooke.....	" 17—19
Connecticut..... Hartford.....	October 7—10
Indiana..... Indianapolis.....	Sept. 29 to Oct. 4
Iowa..... Dubuque.....	" 30 " 3
Pennsylvania..... Norristown.....	" 30 " 3
Illinois..... Peoria.....	" 29 " 4
Do Hort. Society, Chicago.....	" 8—13
New York..... Rochester.....	" 30 " 4
New Jersey..... Newark.....	" 30 " 4
Michigan..... Detroit.....	" 23—26
Canada West..... Toronto.....	" 22—26
Canada East..... Sherbrooke.....	" 17—19

COUNTY AND TOWN—NEW YORK.

Albany..... Albany.....	Sept. 23—23
Allegany..... Angelica.....	" 23—24
Broome..... Binghamton.....	" 9—12
Brooklyn Hort. Society..... Brooklyn.....	" 18—20
Cattaraugus..... Olean.....	" 23—25
Cayuga Southern..... Sherwood's Corners.....	" 16—17
Chautauque..... P. nama.....	" 10—12
Chautauque Far. & Mech. Fredonia.....	" 24—26
Chenango..... Norwich.....	" 24—26
Columbia Ag. & Hort..... Hudson.....	" 24—26
Delaware..... Franklin.....	" 17—19
Essex..... Elizabethtown.....	" 25—26
Greene..... Cairo.....	Sep. 30 Oct. 1
Livingston..... Genesee.....	Sept. 25—26
Oneida..... Rome.....	" 10—12
Oxford Town..... Oxford.....	" 16—18
Putnam..... Lake Mahopac.....	" 24—26
Queens..... Newtown.....	" 18—19
Rosendale..... Ulster Co.....	" 16—18
Rushville Union..... Rushville.....	" 22—23
St. Lawrence..... Canton.....	" 23—25
Steuben..... Bath.....	" 24—26
Susquehanna Valley..... Unadilla.....	" 23—24
Saratoga..... Saratoga Springs.....	" 2—5
Tompkins..... Ithaca.....	" 24—26
Tonawanda Valley..... Attica.....	" 12—13
Ulster..... Kingston.....	" 23—25
Westchester..... Mt. Vernon.....	" 23—25
Washington..... Salem.....	Sep. 30 Oct. 1

CANADA WEST.

Brockville..... Brockville.....	Sept. 18—19
Durham West..... Newcastle.....	Oct. 9—10
East York..... Markham Village.....	" 9
Kingston Electoral..... Kingston.....	Sept. 18
North Lanark..... Almonte.....	" 16
North Simcoe..... Barrie.....	Oct. 1
No. Leeds and Grenville..... Frankville.....	" 1
North Ontario..... Prince Albert.....	" 7
Peel..... Brampton.....	Sept. 17—18
Russell..... Osburne.....	" 30
South Simcoe..... Bradford.....	Oct. 2
Stormont..... Cornwall.....	" 8—9

KEEPING GRAPES.—Into the bottom of a small keg or nail-cask put a layer of grape leaves fresh from the vines. On these carefully place a layer of sound, ripe, dry grapes, then leaves and grapes in alternate layers, till the keg is full. Head up the cask, and bury it in some well-drained ground, below the depth of the frost. Like other things excluded from the light and air, they will change rapidly on exposure, and hence when a keg is opened and they are found good, use them freely.—*Exchange.*

CLEAN YOUR SEED WHEAT.—MRS. CHAPPELL & SPRAGUE, of this city, manufacture a machine for cleaning oats, barley, &c., out of seed wheat, which is at once ingenious, simple and effectual. Having witnessed its operation, we can cheerfully recommend it to our readers. For further particulars see our advertising columns.

RANCID BUTTER.—GEORGE E. BRACKETT, of Belfast, Me., writes: "Tell M. B. to churn his rancid butter over; that is, put it in a churn with sweet milk and re-churn it."

Special Notices.

FRUIT-GROWERS' SOCIETY OF WESTERN NEW YORK
September meeting of this Society will be held in Rochester Tuesday, September 30, 1862, at its usual rooms.

In circulars to the members the Secretary will give due notice of the subjects to be brought up for discussion.

By order of the Council.

C. P. BISSELL, Secre.

The Markets.

OFFICE OF THE GENEESE FARMER.
ROCHESTER, N. Y., Aug. 26, 1862.

Since our last report, there has been little change in the price of grain. Notwithstanding the most favorable reports of the throughout the country, and also reports of good harvest in England, last month's prices are fully maintained, and in case of Oats there has been an advance of two or three cents per bushel.

As compared with this time last year, wheat is now from 25c. per bushel higher, and about 5c. higher than at the time in 1860, or 1859; and from 10c. to 15c. higher than it is, however, fully 25c. a bushel lower than at this time in 1861.

As compared with prices at this time in 1853, '59, '60 a wheat is now from 9c. to 12c. per bushel above the average.

In regard to future prices, it is hardly safe to predict, possible that prices will be higher, but as it appears to be probabilities are against any material advance. Money was so abundant as now, and millers and speculators will be to pay as much for grain as the state of the market at home abroad will warrant.

The exportation of produce from New York continues immense scale. For the week ending Aug. 19, they amount nearly three millions of dollars! The total amount from Jan. 1861 to Aug. 19 is \$56,382,935. This is five millions more than the same period last year, and thirty millions more than for the period in 1860!

Exchange on England has fallen since our last report from 127; the premium on gold has also fallen 5 per cent.—it is now quoted at 115. The specie in the New York banks is fifty per cent. higher than the average of the last nine years. Millions upon millions of American stocks have been sent home from New York, but this, as the above figures show, has only served to demonstrate the financial strength of the nation.

In this State the crop of Barley will be light, but of excellent quality. The increased certainty of the wheat crop causes and less breadth of land to be sown each year to barley. In Canada and throughout the West the crop will be about an average. The season will open with a light stock of Malt and old I on hand.

Oats have been seriously injured in some sections by the late frosts.

In this section it is thought that the Potato crop will be light.

NEW YORK, Aug. 25.—The transactions in grain and flour have been less extensive for a few days past. Ocean freights have advanced, and this has checked exportation. White Wheat is quoted at \$1.37@1.56 as the range, and Red Wheat at \$1.10@1.20. Mixed Western Corn, 55@61c; yellow Corn, 62@66c; white 75c. Rye, 77@80c. Western Oats, 45@51c; State Oats, 52@55c. Barley, 65@80c. Beans in fair demand—medium, @ \$3.00 per bushel of 62 lbs.; marrows, \$3.00@3.10. H growth of 1861, 14@17c. per lb. Butter in active demand home trade and for export to England—State, choice, 16@18c; State, common to good, 14@16c; choice Western Reserve, 16c; fair to choice Western, 12@14c; common Western, 11@13c; Grease Butter, 9@9½c. Cheese, market active and fair choice State dairies, 8@9c; Ohio, fair to choice, 7@8c; dan Cheese, 8@9c. Fruit—Plums plenty and cheap; green 4@1.50@1.75 per bushel; blue Gage, \$1.25@1.50; common 1.75c. Summer Apples, \$1.00@1.75 per barrel. Common 1.50@1.75 per barrel; Bell Pears, \$1.50 per barrel; choice Pear quoted. Peaches, 50@62c. per basket. Potatoes—\$1.50@1.75 per barrel.

NEW YORK CATTLE MARKET.—Last week the Cattle market was unusually active and prices advanced ½c. per lb. For extra, 8@8½c.; common to good, 6@7½c. The greater

tion of the cattle were from Illinois. They were a full average quality.
Milk Cows in good demand. Prices range from \$25 to \$45.
Calves in demand at 3½@5½c. per lb.
Sheep—active at 4@4½c.; Lambs, 4½@5½c.
Hogs—receipts light and prices firm, with an upward tendency.
fine corn-fed, 3½@3¾c. live.
Horses are wanted for the army, but prices are low. There has
been more inquiry for first-class coach horses. One pair sold at
\$800; another pair at \$800, and a third at \$600. Not much in-
quiry for good single horses; a few sold at \$150@165. Draught
railroad horses are very dull.

TORONTO, Aug. 25.—Fall Wheat, 95c@1.04; Spring Wheat,
87c. Barley, 52@53c. Rye, 60c. Oats, 35@40c. Peas, 6 c.
beans plenty at 40@50c. per bushel. Potatoes, 40@50c. Wool,
main advanced, 35@38c. per lb. Hay, \$16@18 per ton. Straw,
1@12 per ton.

Beef Cattle are dull; first class, \$4.00@4.50; second class, \$3.25
@3.75. Sheep plenty; sales at \$3.00@3.75.

Eggs scarce at 15c. per doz. Chickens, 20@30c. per pair.
Ducks, 30@45c. per pair. Turkeys, 75@95c. each. Butter, 15@
20c. per lb.

CHICAGO, Aug. 25.—Spring Wheat, in store, No. 1, 95@97c.;
No. 2, 85@88c.; Rejected, 75@80c.; Red Winter, No. 1, \$1.04@
1.05; No. 2, 95c@1.00; Rejected, 95@96c. Corn, mixed, 35@
36c. Oats firm; sales at 36@37½c. [This is by telegraph. The
Farmer, of Aug. 23, quotes them at 31½@32½c. in store
No. 1.] Rye, 50@51c. Barley, sales of new at 6c. Beans,
50@52.00. Potatoes, 30@35c. per bushel. Eggs, prime fresh,
4@5c. per doz. Butter, strictly prime firkins, 10@10½c. per
other grades, 8@10c.

ROCHESTER, Aug. 26.—White Wheat, \$1.25@1.30; Red, 97c@
1.03. Corn, 45@50c. Rye, 60@65c. Oats, 40c. Barley, 55@60c.
Beans, \$1.50@2.00. Eggs, 10c. Apples, 25@40c. per bushel.
Potatoes, 40@50c. Wool, 45@50c. Hay, \$7.00@12.00. Straw,
50@55.00.

BUFFALO, Aug. 25.—Wheat, red winter, \$1.10@1.15; white
winter, \$1.30; Spring Wheat, sales at 95c. Corn, sales at 42
@43½c.

PHILADELPHIA, Aug. 25.—White Wheat, \$1.35@1.50; red
Pennsylvania, \$1.30@1.33; Southern red, \$1.35. Rye, new, 75c.;
old, 50c. Corn, yellow, 63@65c. Oats, new, 38@40c.; old, 52c.
over Seed is coming in slowly; sales at \$4.75@5.25. Timothy
seed, new, \$1.70@1.75 per bushel.

LIVERPOOL, Aug. 14.—Wheat quiet; red western and southern,
9d.@11s. 5d. per cental of 100 lbs. This is equal to \$1.40@
1.65 per bushel. White western and southern, \$1.65@1.75
per bushel. Corn has an upward tendency; mixed and yellow,
cents per bushel.

LONDON, Aug. 25.—American red Wheat, \$1.53@1.65; white,
71@81.3. Barley, foreign for grinding and distilling, 69c@
1.02. [English for malting, 90c@1.14.] Indian Corn, \$1.02@
1.05. American Flour, \$6.00@7.50 per barrel. English fresh
utter, 24@28c. per lb. Cheese, Che-bire, 12@16c.; American,
11½c. per lb. [These prices are calculated on a basis of
\$30 in a pound sterling, or 24 cents in an English shilling. At
the present rate of exchange, we must add 17 per cent. to the
above figures.]

ADVERTISEMENTS.

A FEW short advertisements of interest to farmers—and only
such—will be inserted in the *Genesee Farmer* for twenty-five cents
line, or \$2.50 per square, each insertion, payable in advance. To
secure insertion, they should be sent in by the 15th of the previous
month. The *Farmer* has large lists of subscribers in every State
and Territory, and in all the British Provinces. (It has nearly
900 subscribers in Canada West alone.) There is no better or
cheaper medium for advertising everything of general interest to
rural residents in all parts of the United States and Canada.

We will also insert a few "Special Notices," if appropriate to
our columns, at fifty cents a line.

S. M. PETTENGILL & CO.

No. 37 Park Row, New York, & 6 State St., Boston,
are our Agents for the *GENESEE FARMER* in those cities, and are
authorized to take Advertisements and subscriptions for us at our
lowest Rates.

MOLE PLOWS—By J. DUNHAM, Ithaca, N. Y.

3—1f

\$100 OR MORE may be made by any LOCAL AGENT
without leaving his home, besides rendering an im-
portant service to his neighbors and friends, by selling the OPOKTO
grape vines. For terms to agents, address
E. WARE SYLVESTER, Lyons, N. Y.

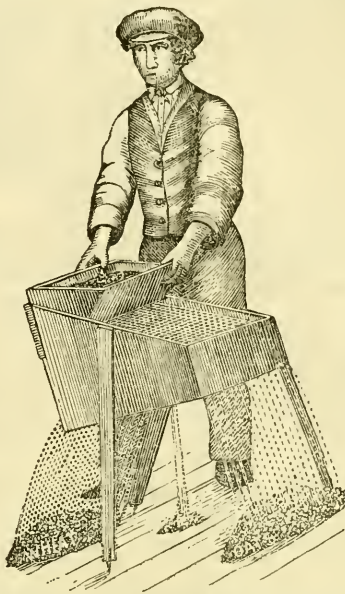
sept1

TO GROWERS OF SPRING WHEAT.

CHAPPELL & SPRAGUE,

ROCHESTER, N. Y., SOLE MANUFACTURERS OF

THE BEST MACHINE EVER INVENTED FOR



SEPARATING OATS, BARLEY, &c., FROM WHEAT

"BOOTH'S COMPOUND SHAKER."

FOR SEPARATING OATS, BARLEY, AND OTHER FOR-
eign substances from Wheat, it is the BEST, SIMPLEST,
CHEAPEST and only Machine ever invented, that thoroughly ac-
complishes the desired end. Farmers can always get from five
to ten cents per bushel more for their Wheat if properly cleaned.
It cleans from 150 to 200 bushels per day, and a boy can operate it,
and its exceeding

LOW PRICE

Brings it within the reach of every Farmer. On receipt of SIX
DOLLARS, a Machine (with printed instructions for operating),
will be shipped as directed. Those wishing to engage in the
sale of the Machine and purchasing by the dozen, will have a
fair discount made to them. All orders to be addressed to

CHAPPELL & SPRAGUE, Rochester, N. Y.,

Sole Manufacturers.

sep-6t

PINE HILL NURSERY,

NEAR BUFFALO, N. Y.

THE subscriber offers for sale a large stock of well grown Fruit
and Ornamental Trees, and Grape Vines—all at greatly re-
duced prices.

Wholesale Price Lists and descriptive Catalogues sent to all
applicants.

Agents wanted to sell trees, &c.

sept1

GODFREY ZIMMEERMAN.

AGENTS WANTED AT ONCE

FOR A COMPLETE HISTORY OF THE

REBELLION—To be issued by The Au-
burn Publishing Co.
Prospectus and Descriptive Circulars sent free to those
who write to E. G. STORKE, Auburn, N. Y.

LYONS NURSERY.

WHOLESALE AND RETAIL.

AGENTS and Purchasers wanted for a well grown and varied
assortment of Apple, Pear, Peach and Plum Trees, and
twenty varieties of Grapes. Send for priced catalogue.
E. WARE SYLVESTER, Lyons, N. Y.

sept1

20,000 DELAWARE VINES, 200,000 CONCORD
VINES—strong, healthy and cheap. Send for
Catalogue of Prices. Address WM. PELRY & SON,
Bridgeport, Conn.

sept3t

IMPORTED DUTCH BULBOUS ROOTS.

J. M. THORBURN & CO.'S ANNUAL DESCRIPTIVE CATALOGUE OF

HYACINTHS,
TULIPS,
IRIS,

CROCUS,

JAPAN LILIES,

NARCISSUS,

BULBOCIDIUMS,

LILY OF THE VALLEY,

FERRARIAS

LACHENALIAS,

AMARYLLIS,

GLADIOLUS,

CYCLAMENS.

SOILLAS,

BABIANAS,

&c., &c., &c., &c.,

is now ready for mailing to applicants.

We are glad to be able to state to our friends, that the rapid increase in the demand for Flowering Bulbs has induced us this year to add materially to the varieties in this class of plants; and that our stock will be found this season far superior to that which our Trade demands have heretofore enabled us to offer.

J. M. THORBURN & CO.,
Growers and Importers of Seeds.

15 John street, New York.

N. B. Now ready for immediate sowing, seeds of
AMERICAN ELM, per oz., 20c., per lb., \$2 50 } by mail
LARGE SCOTCH ELM, " 20c., " \$2 00 } free of
SILVER LEAVED MAPLE, 20c., " \$2 00 } postage.

ALSO,

BLACK MAZZARD CHERRY PITS, 35c. per qt., \$5 per bush.

Trade Price Lists on application.

11

CONCORD GRAPE VINES, AND BLUE-BLACKED GAGE PLUM TREES.

I NOW OFFER FOR SALE ABOUT FIFTEEN THOUSAND two-year old Concord Grape Vines, either singly, by the dozen, hundred or thousand, and at very low prices. Persons desiring to purchase will please state how many they want, and I will at once send them my lowest terms, with no variation to different customers. The Concord is now well-known as being the best Vineyard and Garden Grape known, ripening early and making the best wine of any kind known. More full details of the character of the Grape sent to all applicants.

I also offer for sale one thousand one-year old Blue-Blacked Gage Plum Trees at \$1 and \$2 per dozen. This is the only Plum that is positively proof against the Curculio, bearing so immensely that that insect fails to perforate more fruit than ought to drop off. I am compelled to prop up all my trees this season to keep them from breaking down with the load of fruit upon them. No better plum exists for all purposes.

Address

T. B. MINER,

Clinton, Oneida County, N. Y.

N. B.—A credit of from three to twelve months will be given to purchasers, according to responsibility or security offered.

sep-21

FARM FOR SALE!

ADJOINING THE DEPOT—In Warren, Penn., of seventy-five acres of land, with a new Frame House, nearly all finished below in a good substantial manner, with a good Stone Cellar under the same. About twenty-five acres under improvement, with seven acres more which might be put into wheat the present fall with trading expense. It is first rate wheat land, and is well supplied with pure water from never-falling springs. For a man who is desirous of going into the fruit-growing business the location cannot be surpassed in Western Pennsylvania, having the advantage of a home market with the highest prices.

One-half of the purchase money may pay for one or two years, if desired. I can be seen in Erie every day (Sundays excepted) from 11 A. M. till 3 P. M., and in Warren from 6½ P. M. till 7½ A. M. Any communication of inquiry directed to Warren, Penn., will be promptly answered.

Warren, Sept. 1, 1862.—31

D. M. JAMES.

OUR STOCK FOR FALL AND SPRING IS VERY EXTENSIVE and in quality of THE BEST, being healthy and vigorous. Farmers, &c., by clubbing, will be supplied with handsome Trees at our wholesale rates. Correspondence solicited. Send for a catalogue.

Prices per 1,000 as follows, and in most cases the same rate per 100.

APPLE TREES—5 to 8 feet, \$45; 4 to 5 ft., \$20. STAND-
ARD PEAR—6 to 8 ft., extra, \$250; No. 1, 4 to 6 ft., \$200; No. 2, \$100. DWARF PEAR—Extra sized, \$200; No. 1, \$130;
No. 2, \$60. CHERRY (handsome)—5 to 8 ft., \$60; do. Cherry,
\$70. PLUM—best in State—5 to 7—\$20; No. 2, 4 to 5 ft., \$10;
PEACH—No. 1, 50; No. 2, \$25. HORNET RASPB-
BERRY—\$5 per 100. For varieties, seedlings, &c., send for
Catalogue.

H. SOUTHWICK & SON.

Dansville, Livingston county, N. Y.

FRUIT AND ORNAMENTAL TREES.

ELLWANGER & BARRY

BEG LEAVE TO ANNOUNCE THAT THEIR STOCK OF Nursery Articles for the ensuing Fall Trade embracing every thing desirable, new or old, in both

FRUIT AND ORNAMENTAL DEPARTMENTS,

is quite equal, and in some respects superior, to any ever before offered by them, and they solicit

PLANTERS, NURSERYMEN AND DEALERS

to examine their Catalogues, which give details of the stock and prices.

Their new Wholesale Catalogue for the season is just issued, and will be sent gratis to all who apply and inclose one stamp.

MOUNT HOPE NURSERIES.

Rochester, N. Y., August, 1862.

LODI PHOSPHATE,

COMPOSED OF RAW BONES DISSOLVED IN SULPHUR-ic acid, night soil, guano and wood dust. Made by the Lodi Manufacturing Company expressly for winter grain and grass lands. This article will be warranted to contain no other material than the one mentioned above, and is undoubtedly the very best manure in market from its composition, and will be sold at the low price of \$45 per ton, packed in barrels of 200 lbs. each, with weight, delivered free on board of vessel or railroad in New York city.

Poudre of first quality for sale at usual rates. Apply to

THE Lodi MANUFACTURING CO.,

sep-21

66 Cordard street, New York.

THE CHILSON FURNACE.

THIS celebrated Furnace, which has been so extensively used in public and private buildings, and which has stood the test of experience after various attempted imitations, is still for sale in Rochester. The different sizes are fitted for all classes of buildings, from the cottage to the church. They can be purchased at lower rates than ever before, and any one desiring to manufacture these Furnaces can, on short notice, be furnished with a full set of iron patterns for all the different sizes.

Further information can be obtained from the Editor of this paper.

sep—11

GRAPE VINES BY MAIL.

I HAVE A LARGE QUANTITY OF VINES, SUITABLE for sending by mail, of the following kinds, at the annexed prices, in advance, free.

	Each.	Two.	Three.	Six.	Twelve.
Concord	0 25	0 65	0 90	\$1 60	\$3 00
Delaware and Diana	0 60	\$1 10	\$1 60	3 00	5 50
Hartford Prolific	0 50	0 90	1 30	2 40	4 50

Send Cash early to

Reference—Rev. J. Knox.

J. H. FOSTER, JR.,

Dispatch, Pittsburg, Pa.

FOR SALE.

CLOTSWOLD, LEICESTER AND LINCOLNSHIRE SHEEP, male and female. Durham and Galloway Cattle, male and female. Thirty Bucks, one year old, weighing from 220 to 285 lbs. each; price, from \$50 to \$100 each. Canadian currency. A large number of Buck Lambs—price from \$30 to \$40 each.

I intend to exhibit a number of Sheep at the New York State Fair at Rochester.

JOHN SNELL,

sep-21

Edmonton Post-office, C. W.,
20 miles west of Toronto on the G. T. RR.**RUSSELL'S PROLIFIC STRAWBERRY PLANTS.**

RECENT RAINS HAVE FORWARDED THESE PLANTS so rapidly, the subscriber is induced, by urgent demands, to put them in market, and they are now ready for delivery.

Price, \$5 per doz., or \$3 per half doz. Cash must accompany orders.

11

GEO. CLAPP, Auburn, N. Y.

100,000 PLUM TREES.

TO NURSERYMEN, DEALERS AND PLANTERS.—60,000 2 and 3 years from bud, 4 to 6 feet, stocky, \$20 per 100.—Second size, 3 to 4 feet, \$15 per 100. 40,000 1 year old, 8 feet, \$12 per 100. These Plum trees are budded on Plum stock, not on Peach, as those worked on Peach are worthless in a few years.

Address,

C. REAGLES & SON,

sep-21

Schenectady, N. Y.

CLOVER HULLING AND CLEANING MACHINES.

HULLS AND CLEANS FROM THREE TO TEN BUSHELS per hour. Late improvement, patented March 25, 1862. Description of this great machine sent gratis on application. Made and for sale only by

sep-31

M. H. MANSFIELD, Patentee,
Ashland, Ohio.

Grover & Baker's

CELEBRATED NOISELESS SEWING MACHINES.

FOR

Family and Manufacturing Use,
495 BROADWAY, NEW YORK.

C. GOODWIN, 92 State St., Rochester, N. Y.

agencies in all the principal Cities and Towns in the
United States.

THE GROVER & BAKER S. M. CO.

NOW OFFER IN ADDITION TO THEIR

SPLENDID STOCK OF MACHINES,
MAKING THE CELEBRATED

GROVER & BAKER STITCH,

NEW AND SUPERIOR

Shuttle, or "Lock-Stitch" Machines,

ADAPTED to all varieties of sewing. Much more Simple,
Durable, Noiseless and Perfect than any other "lock-stitch"
machines heretofore in use.

The Grover & Baker machines have taken the first premiums,
over all competition, at every State Fair where they were
exhibited last year.

The Original Howe Sewing Machine!

RECENT and important improvements having been put to
this Machine renders it now the most perfect before the
public, and persons at a distance can order a Machine with a
guarantee of its prompt and safe delivery, and that they will be
able to manage it to their entire satisfaction. No more breaking
edges! No more missing stitches! No trouble in making any
sewing, however delicate or heavy, on the same Machine, either
cambric, cloth, or leather. No person should think of purchasing
a Sewing Machine without first seeing this—the latest and
greatest triumph of the original inventor of the Sewing
machine.

Send for a Descriptive Catalogue of styles and prices. A
few responsible Agents would be dealt with liberally. Address
THE HOWE SEWING MACHINES,
July, 1862.—21t 437 Broadway, New York.

GENESEE VALLEY NURSERIES,
ROCHESTER, N. Y.

ROST & CO. offer an immense stock of Trees and Plants for
planting during the Autumn of 1862 and coming Spring,
which will be supplied at LOW RATES and on favorable terms.
Their Nurseries occupy at present upward of Three Hundred
acres, and contain an extensive assortment of FRUIT TREES,
both DWARF and STANDARD, SMALL FRUITS, etc., as well as a
great stock of EVERGREENS, DECIDUOUS TREES, ROSES,
etc., etc.

Our Descriptive Catalogues Nos. 1, 2, 3, and 5, of Fruits,
Ornamental Trees, Shrubs, etc., Green House Plants and Hardy
Plants, and also No. 4, their Wholesale List, are sent free on application.

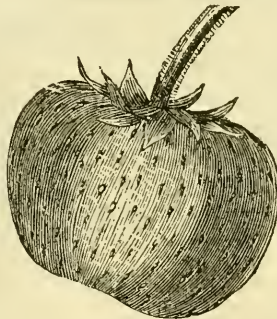
Parties who desire to plant in large or small quantities, should
apply to them before purchasing. All communications promptly
attended to. Aug.—2t

Back Volumes of the Genesee Farmer.

WE have the back numbers of the Genesee Farmer, hand-
somerily bound, for the years 1846, 1847, 1848, 1849 1853,
1855, 1856, 1857, 1858, 1859, 1860 and 1861. They will be sent free
on any address for \$1.00 each. The last six volumes, from 1856 to
1861 inclusive, handsomely bound, will be sent free by express,
by mail postage paid, for \$5.00. Address

JOSEPH HARRIS,
Publisher and Proprietor of the Genesee Farmer,
Rochester, N. Y.

Great Austin Shaker Strawberry.



THE berries of this remarkable variety are much larger than any other kind cultivated in this country. It produces extraordinary crops, and the fruit is very attractive, being of a fine scarlet color. The Austin was exhibited at the office of the American Agriculturist last year, weighing one ounce. Nearly 1,000 boxes were sent from Water-viet last year, a distance of 160 miles, and sold to Taylor, corner Broadway and Franklin streets, N. Y., for 30 cents per quart, proving the Austin to be

one of the most profitable market berries in cultivation. Our stock of plants is very large and fine, at the following rates: 80 plants, \$1 00; per hundred, \$2.00; per thousand, \$15.00.

We commence delivering plants on the first of August, in rotation as ordered. Address either

CHAUNCEY MILLER, Albany, N. Y., Shaker Trustee, or
WM. S. CARPENTER, 329 Greenwich Street, New York.

CHOICE GRAPES AND SMALL FRUITS.

FROST & CO., Proprietors of the GENESEE VALLEY NURSERIES, Rochester, N. Y., offer for sale an immense quantity of choice sets of Small Fruits, &c.

Their stock of the new sorts of NATIVE GRAPES, both one and two years old, Delaware, Diana, Concord, Cuyahoga, Hartford Prolific, Rebecca, etc., is very large, fine and well grown—as well as FOREIGN SORTS.

Also, CURRANTS, GOOSEBERRIES, STRAWBERRIES, RASPBERRIES, BLACKBERRIES, &c. Plants furnished in large and small quantities at LOW PRICES. Descriptive and Priced Catalogues furnished on application. Aug.—2t

RECEIVER'S SALE OF NURSERY STOCK.

THE undersigned, appointed Receiver of the nursery stock of the late firm of Gregory & Goldsmith, now offers the same for sale to Dealers and Nurserymen. The stock consists of 40,000 Dwarf Pears, 10,000 Standards, 20,000 Cherries, 12,000 Apple trees, and a large variety of Evergreens and Ornamental Shrubs, on the late farm of James H. Gregory, adjoining the nursery of Ellwanger & Barry. The property is desirable and will be sold low. Application should be made at once to

PATRICK BARRY, Receiver, or his
Agent, JAMES H. GREGORY.

Dated August 1, 1862.—3t

FOR SEWING MACHINES.

JONAS BROOK & BROTHERS'

PRIZE MEDAL SPOOL COTTON,

200 or 500 yard spools, White, Black, and Colored.

FOR MACHINES, use BROOK'S PATENT GLACE for upper thread, and BROOK'S SIX CORD RED TICKET for under thread. Sold by all first class dealers in city and country; also in cases of 100 dozen each, assorted numbers, by WM. HENRY SMITH, Sole Agent, 86 Vesey street, New York. Ja—1y

WOOD CUTS FOR SALE.

WE will sell Stereotypes of the Wood Cuts used in the Genesee Farmer and Rural Annual and Horticultural Directory. A book containing impressions of over Seven Hundred of these cuts will be sent to those wishing to purchase on the receipt of 50 cents. The book contains an index, showing where descriptions of the cuts will be found.

Address JOSEPH HARRIS, ROCHESTER, N. Y.

TREES AND PLANTS AT LOW PRICES.

FROST & CO.'S WHOLESALE CATALOGUE, No. 4, for Fall of 1862, representing Nursery Stock grown from upward of Three Hundred Acres of Land, is now ready for distribution. GENESEE VALLEY NURSERIES, Rochester, N. Y.

Aug.—2t

WANTED—By a practical Vintner, Gardener, Florist and Nurseryman, thoroughly acquainted with the Culture of the Grape, and a practical knowledge of the Nursery business, &c., &c., a Situation as Superintendent, or to take charge of a Vineyard on shares. Can give No 1 references as to ability and character. Apply at the office of the Genesee Farmer, or address A. B. C., Versailles, Woodford Co., Ky., lock-box 181. 7-33

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EMPLOYMENT!—Agents wanted in every county, to sell the best (Two-threaded) Sewing Machine ever offered to the public. Liberal salary, or commission allowed, with expenses. Circular sent, by addressing with stamp,
Aug.—24 ISAAC HALE, Jr., & CO., Newburyport, Mass.

THE RURAL ANNUAL—For 1866, '67, '68, '69, '70, '71 and '72 will be sent, prepaid to any address for \$1.40.
JOSEPH HARRIS,
Rochester, N. Y.

A TREATISE ON SORGHUM WINE

AND

RECIPE FOR MANUFACTURING

OF which so much has been said in the agricultural and local papers of the State, is now offered for sale.

I have now matured my plans, by which I will dispose of

Individual, Manufacturers, County and State Rights,

to all who may desire them.

Sorghum Wine has taken the country by surprise; not only account of its production from this plant, but of its superior quality. Such a product has never been thought of until its invention by the subscriber.

The Wine has been examined at the State Sorghum Convention of Ohio, January 7, 1862, and highly commended. It has been exhibited to wine connoisseurs in the cities of Columbus, Cincinnati, Springfield, Cleveland, New York, Philadelphia, Baltimore and Washington. It has not only surprised them, but received their unqualified commendation. It has been used by Physicians in cases of sickness with entire satisfaction, because of its purity and healthfulness. About one barrel of it has been distributed to dyspeptics, all of whom, except those whose disease had assumed a chronic form, have given harmonious testimony of its beneficial effects, some of whom have been restored to health by the use of a few gallons.

RECOMMENDATIONS.

The following are a few of the many commendations which could give. The first is from HON. WILLIAM B. HUBBARD, Columbus, O., President of the United States Agricultural Society, held annually at Washington, D. C.

COLUMBUS, March 31, 1862.

Rev. A. MYERS—Dear Sir: The sample of Sorghum Wine left by you with me, has been submitted to several good judges who have visited my house, and, without exception, lined with decided commendation. Most of them pronounced it aroma, or fragrance, of your Wine that of the Sherry, the musicity of the Madeira. It is certainly a fair Wine, and destined, no doubt, from the ease and cheapness of its manufacture, to become an item of value to the manufacturer and cultivator.

Yours truly,

W. B. HUBBARD.

The following is from Mr. D. M. COOK, of Mansfield, Ohio, Inventor and Patentee of Cook's Portable Evaporator:

MANSFIELD, O., March 15, 1862.

Rev. A. MYERS—Dear Sir: I have used your Wine, made from the Sorghum juice, and I heartily endorse the fact that your Sorghum Wine is most delicious, and that it would be difficult to distinguish it from the best Madeira Wine.

Hoping that you will not fail to introduce your work on Sorghum, as also your Wine to the public benefit,

I am truly your most obedient,

D. M. COOK.

This Wine is a Mild Stimulant and NOT Intoxicating

1. An **INDIVIDUAL RIGHT** embraces the privilege to manufacture all an individual desires for the use of his own family. Price, \$1.00.

2. A **MANUFACTURER'S RIGHT** embraces the privilege to manufacture all a manufacturer of Sorghum Syrup can while in manufacturing Syrup, from the washings and skimmings of inferior Syrup for his own use and for sale. Price from \$5.00 to \$25.

3. A **TOWNSHIP, COUNTY or STATE RIGHT** embraces the exclusive privilege of manufacturing and selling Recipes in said limits. For price, etc., address subscriber.

REFERENCES.

As a guarantee of honesty and ability to perform all I agree, refer to the President and Professors of Wittenberg College, Springfield, O.; any of the citizens of this city, or Bucyrus, O. and all the English Lutheran Ministers in the State of Ohio, especially those of the Miami and Wittenberg Synods.

Persons desiring the use of this recipe, and indicating the privilege they desire, and sending the amount to me by mail, or when the sum exceeds \$5, by express or draft, will receive by return mail a Certificate of Right, and about the 1st of September will receive the Recipe.

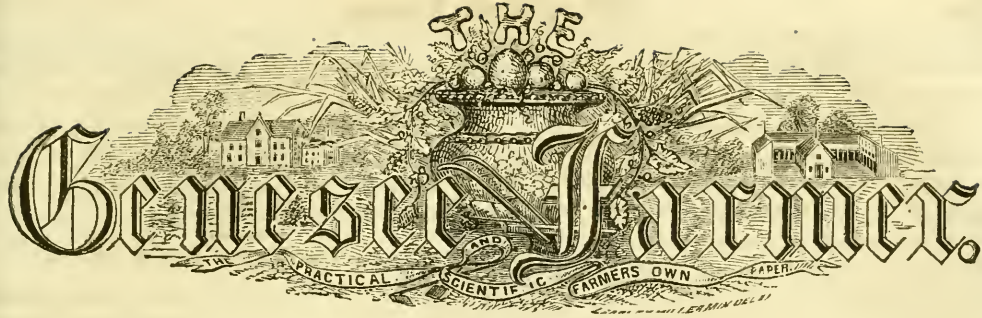
Every subscriber will be required to sign an Obligation of Secrecy, which they will receive with the Certificate of Right, to be returned to me when signed. This is required to secure to me my right as inventor. Honest men will not hesitate to comply with dishonored ones I wish to have no dealings.

Persons well known in any community making up a club of ten or more will be suitably rewarded. Address

A. MYERS, Springfield, Ohio.

Thoroughbred Devon Cattle

FOR SALE—Of both sexes, and of various ages. For pedigrees and full particulars address me at Victory, Cayuga Co. N. Y. July—31
GEO. E. LOCKWOOD.



AGRICULTURE AND THE WAR.

It is difficult at this time to write about anything, or talk about anything, or think about anything, but the War.

What the effect of the war will be on the political, social and moral well-being of the nation, is not for us to discuss. Whether, as some think, and as we sincerely hope, we shall emerge from the terrible ordeal purged of political corruption and unscrupulous personal ambition, with brighter and more steadfast patriotism and higher and more unselfish aspirations; or whether, on the other hand, as some fear, we shall be given over to the fierce passions which a civil war is liable to engender, and lose that reverence for religious truth and that high christian morality which have hitherto gone hand in hand with our rapid advancement in the arts of civilization and material progress. Our trust is in God—in the justice of our cause, and in the intelligence of the people. Let us not forget that our lives and our liberties are in His hands; let us reverence His word and keep His sabbaths; let us humble ourselves before Him and He shall lift us up. "Happy is that nation which is in such a care; yea, happy is that nation whose God is the Lord."

But while we may not discuss these subjects, it is quite consistent with the scope of the *Genesee Farmer* to inquire what will be the effect of the war on the agriculture of the country?

That it will have a great effect of some kind there can be no doubt. It is said that there were farmers who lived in France all through the revolution and the reign of terror, and never heard of those bloody scenes. But it is not so with us. We have been a peaceful nation. We kept no standing army. Our people were engaged in developing the resources of our great and fertile country. Armed rebels fired on the Stars and Stripes floating over Fort Sumter. Where is the army? We had none—or next to none. But lo! in every city,

town and village men sprang to arms. From the farm, from the workshop, from the crowded city and from the quiet hamlet they come. Half a million men leave the industrial pursuits—the source of our wealth—to fight for the Constitution and the enforcement of the laws. Still things go on in their usual channel. It was feared that the land would be left uncultivated and the crops ungathered. The London *Mark Lane Express*, of July 29, 1861, said, "such an abstraction of hands must interfere with the process of husbandry, and prevent the tillage in many instances altogether." But such was not the case. A large breadth of land had been sown in wheat and other grain, and we have just harvested a crop fully up to the average. So far as agriculture is concerned all is yet well.

But now another *six hundred thousand* men have left the pursuits of peace for the practice of war. What will be the effect on the agriculture of the country? We have little data on which to base our conclusions. No such armies have been seen in modern times. The world stood aghast when NAPOLEON took an army of half a million into Russia. But we have now double that number in the field. To clothe and feed such an army, even with the strictest economy, is an herculean task. But Americans are seldom economical. And in the present instance we have not time, even had we the inclination, to practice economy in the army.

The immense demand for supplies for the army cannot fail to have an influence on the agriculture of the country. It must create an increasing demand for the products of the farm. Other things being equal, therefore, the war has a tendency to enhance prices.

We are spending a million dollars a day, (we have talked so much latterly of *millions*, that we do not realize the amount.) Hitherto we have borrowed the money from the Future and spent it in the Present. The consequence is that money never was so abundant as at the present time. The fol-

lowing line from the New York market reports tells the result:

"MONEY—3 per cent. and plenty."

Now the effect of an abundance of money and a consequent low rate of interest *is to advance the price of all commodities*. This we endeavored to show in an article published in the *Genesee Farmer* for October, 1861, page 267. We have as yet scarcely begun to feel the effect of the abundance of money, but enough so to show that our predictions made at that time will certainly be fulfilled.

A gold dollar, worth 100 cents, now brings 118 cents. "Wheat is as good as gold," and a bushel of wheat worth one dollar ought to bring, and will bring, 118 cents. The price of commodities, other things being equal, rises as the money paid for it depreciates. "Gold 18 per cent. premium" really means "paper money 18 per cent. discount," and this means that wheat, corn, barley, oats and other commodities are 18 per cent. above par. This is so plain that it needs no argument to prove it.

So long as we keep borrowing for the future and spending in the present, so long will money be abundant. As money depreciates, everything else advances. True, it is only an *apparent*, not a *real*, advance. But it has this effect: those who owe money and are able to pay while prices are high are enabled to discharge their obligations in depreciated currency. To them the increase in prices is *real*. No matter if the dollar they receive is really only worth 80 cents; it is, being legal tender, just as good to pay debts with as gold. Such a state of things is good for all who *owe* money, provided they are able to pay. The wealthy man suffers the most.

But the trouble is that most people, as long as money is abundant, are encouraged to extend rather than to contract their expenses. Every man should make a special effort at this time to get out of debt. He makes money by doing so in proportion to the depreciation of the currency in which he pays.

In regard to the effect of the war on the future condition of our agriculture, it is difficult to determine. We shall have to pay the debt now contracted—or at least the interest on it. That we are well able to do this there can be no doubt. *But it will have to come out of the soil*. There is a steam machine in New York which turns out money by millions. This money is good simply because the country is pledged for its redemption. It will have to be paid, and the farmers will have to pay it. It is a tax on the *labor* of the country.

Our aim must be to make that labor more effective. We must be more skillful, more scientific; in other words, we must *farm better*—that is, we must produce larger crops at less cost. "Agricultural Improvement" must be the watchword of every American for the next fifty years.

SALTING CHEESE AND MEAT.

WE understand that a gentleman of this State claims to have discovered a method of salting cheese which removes all risk of loss of cream in pressing out the whey. It consists, essentially, as we understand it, in salting the curd before the whey is removed.

On the other hand, M. BARRAL, the able editor of the *Journal d'Agriculture Pratique*, recently called special attention to an improved method of salting cheese adopted by M. DE LIGNAC, a celebrated cheese maker of France. It is simply to press out as much of the whey as possible before adding the salt. After drawing off the whey, the curd is broken up and put in a cloth and pressed gently for two hours. It is then taken out, the curd broken up again, and salted in the proportion of 1 lb. of salt to 25 lbs. of curd. It is then replaced in a cloth and pressed again for two hours. It is then taken out again and passed through a curd mill which breaks up the curd very fine. It is then placed in the cheese-mold and pressed in the usual manner. For cheese made in this way he obtains a high price.

This process is not new. It is essentially the one adopted by many Cheshire cheese makers in England.

M. DE LIGNAC also adopts a new method of salting meat. When meat is allowed to remain so long in the brine as is usually found necessary, much of the nutriment of the meat is lost—the juices of the meat being absorbed by the brine. In order to avoid this, he places the meat and brine in a receptacle where he can apply considerable pressure, and thus forces the brine into the center of the meat and even into the bones. "It is in a few days salted evenly, as much in the inside as the outside, and keeps perfectly."

A CORRESPONDENT of the *Cottage Gardener*, writing from Lancashire, says: "To give your readers an idea of how matters stand here, I may state that I have had men offering to work for me for their food alone—men who have been accustomed to get from £1 to 36s. per week—so anxious are large numbers to be rid of the task of having nothing to do!"

WIRE WORMS IN WHEAT.

WIRE WORMS are not as destructive to wheat in this country as in England, owing, probably, to the severity of our winters. Occasionally, however, they do considerable damage to our winter wheat.



1 Wire Worm. 2 Wire Worm Attacking Young Wheat Plant.

They lay their eggs in the soil, where they hatch and become larvæ or wire worms. These worms eat into the stem of the young plant just above the root, as it rises from the ground, and destroy it. At the approach of winter they bury themselves deep in the ground, as they cannot support much cold or much drouth.

Many remedies have been suggested to counteract the damage they inflict on our crops. Among the most popular in this country is to sow buckwheat on the land infected with them. If sown two years in succession, no doubt this is efficacious, and even one crop will do some good.

Plowing the land deep late in the fall, and thus turning them up to the frost, will destroy many of them.

To destroy them while they are attacking the wheat is not an easy task. In England, salt is sometime sown on the parts of the field most affected. We have heard of instances where it was thought to have done good; but as a general rule it is not effective. Rolling the crop, especially with a grooved roller, is thought to obstruct their ready passage through the soil and thus force them to the surface, where they are more likely to be destroyed. Dropping slices of potatoes or turnips on the land is sometimes resorted to. The worms feed on the slices, which are picked up and carried away.

ALL fattening animals should be fed with regularity, enough, but not too much.

WINE MAKING.

JOHN E. MOTTIER, a well-known vintner, of Cincinnati, Ohio, writes as follows in the last *Horticulturist*:

In order to make good wine it is necessary to have a good cellar, clean casks, press, etc. First of all, have your grapes well ripened; gather them in dry weather, and pick out carefully all the unripe berries, and all the dried and damaged ones; then mash and grind them with a mill, if you have a proper mill for the purpose. Be careful not to set your mill so close as to mash the seed, for they will give a bad taste to the wine. If you wish to have wine of a rose color, let the grapes remain in a large tub a few hours before pressing. The longer time you leave the grapes before pressing after they are mashed, the more color the wine will have.

For pressing the grapes, any press will answer, provided it is kept clean and sweet.

After you have collected the must in a clean tub from the press, have it transferred into the cask in the cellar. Fill the cask within ten inches of the bung; then place one end of a siphon, made for that purpose, in the bung, and fix it air tight; the other end must be placed in a bucket containing cold water. The gas then passes off from the cask without the air coming in contact with the wine, which would destroy that fine grape flavor which makes our Catawba so celebrated. When properly made, the must will undergo fermentation. Keep the end of the siphon that is in the water fully four inches deep, so as to exclude the air from the wine. When it has fermented, which will be in fifteen days, fill the cask with the same kind of wine and bung it loosely for one week; then make it tight. Nothing more is needed till it is clear, which, if all is right, will be in January or February next. Then, if perfectly clear, rack it off into another clean cask, and bung it up tightly till wanted. If the wine remains in the cask till fall, about November, it will improve by racking it again. Be sure to always have sweet, clean casks. Do not burn too much brimstone in the cask; I have seen much wine injured by excessive use of brimstone, generally by new beginners. For my part, I make little use of it.

You can make different qualities of wine with the same grape by separating the different runs of the same pressing. The first run is the finest, if you want to make use of it the first season; but it will not keep long without losing its fine qualities.

To make good sound wine that will improve by age, the plan is to mix all up together. The very last run will make it rough, but it will have better body and better flavor when two or three years old, and will improve for a number of years. The first run will not be good after two or three years.

I have fully tested the different ways of making and keeping wine these last twenty-five years.

THE London *Florist*, for August, has a very beautiful illustration of two Chinese Primroses. One is *Rubra grandiflora*, and the other *Delicata*. They are double, and have the property of reproducing themselves from seed.

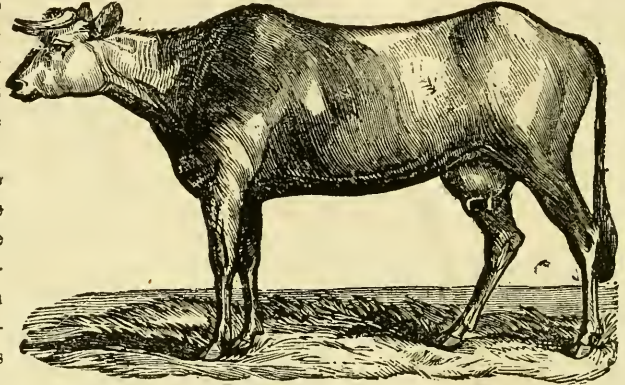
BREEDS OF CATTLE.

A "YOUNG FARMER" wishes a description of the various breeds of cattle. We would cheerfully comply with his request, but it is impossible in the limits of a single article to give him anything at all satisfactory. Perhaps the best thing we can do will be to give the heads, male and female, of the leading breeds, and by thus grouping them together some idea of their general appearance may be obtained. We would recommend our young friend to attend the State Fair, to be held this month at Rochester, and then carefully examine the breeds for himself.

Of the Native cattle little need be said. There are some excellent animals among them, but they are a mongrel race and even with considerable care in selecting the best animals to breed from there is no certainty of obtaining uniformly good herds. Some one has given the accompanying portrait of poor, "Native," and contrasted her with a well-formed Milch cow. The sketch is somewhat overdrawn, perhaps, though it is said to be taken from an actual specimen.

Of the Thoroughbred cattle, the *Short-horn* is entitled to pre-eminence for its early maturity and fattening qualities. Next to it comes the *Hereford*. It does not mature quite so early perhaps as the *Short-horn*, but fattens with great rapidity, and the

the *Short-horns*, but as a rule they are poor milkers. In fact, it is principally for their beef that both the *Short-horn* and *Hereford* cattle are to be commended. It is true that some strains of *Short-horns*, that have been bred with reference to their milking qualities, give large quantities of milk and of excellent quality; but as a general rule, *Short-horns*, taken as a whole, are not well adapted for



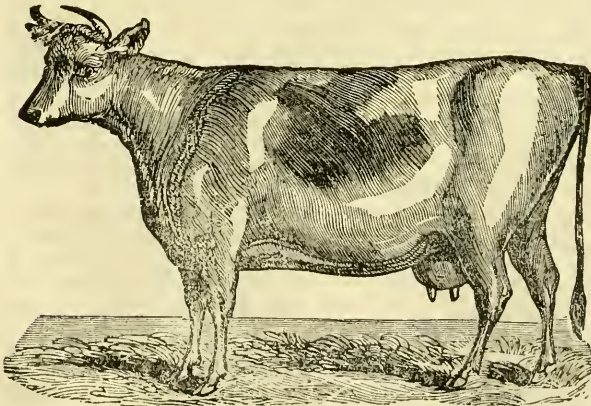
[NATIVE COW.]

dairy purposes. That they might be bred so as to make excellent milkers, there can be no doubt.

The *Devons*, in some respects are not very dissimilar from the *Herefords*. They are not so large as either the *Short-horn* or the *Hereford*. They are active and hardy and make excellent working cattle. It is said that "they have a greater proportion of weight in the most valuable joints, and less in the coarse, than any other breed, and also consume less in its production." Their milking qualities are about an average.

These are the three principal English breeds. The "*Long-horns*" were at one time widely diffused throughout the midland counties of England, but they have very generally been displaced by the *Short-horns*, though some excellent specimens are frequently exhibited at the English Fairs.

The *West Highland*, or *Kyloe*, is a hardy Scotch breed that would prove useful in the hilly districts of the Northern and Eastern States. Their skin is thick but mellow, and is covered with long, black, shaggy hair. They are somewhat slow in coming to maturity, but will fatten where the daintier *Durham* would barely subsist. Their beef is of the very best quality, and commands in London a higher price per pound than that of any other breed.

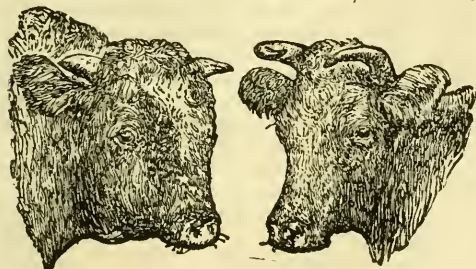


MILCH COW.

meat is of excellent quality. They have very marked characteristics, and when once seen can never afterwards be mistaken. They are generally of a light or dark red color, with a white face—frequently with white marks on the neck and along the back, and also the under parts of the body. The *Herefords* make better working cattle than

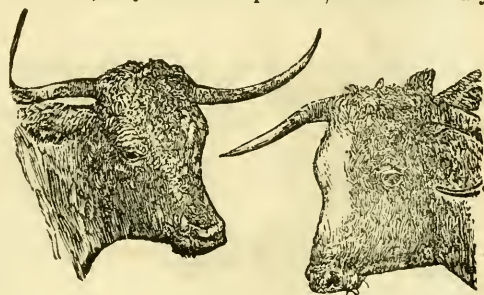
The *Galloways* are closely allied to the West Highlands. They are larger and not quite so hardy; are said to be more docile, with a greater aptitude to fatten after they have come to maturity. The quality of their meat is excellent, and the best

ence between them is that the Ayrshires are celebrated for the *abundance* of their milk—the Alderneys for its quality. For those who require rich milk, they have no superiors; but for ordinary



HEADS OF SHORT-HORNS.

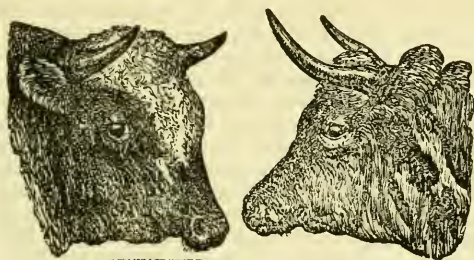
parts are largely developed. They have no horns. They have long, black shaggy hair, and their hides would make an excellent substitute for buffalo robes. These cattle, as well as the West Highland,



HEADS OF LONG-HORNS.

dairy purposes they are inferior to the Ayrshires.

In determining which of the various breeds to select, we need hardly say to our young friend that

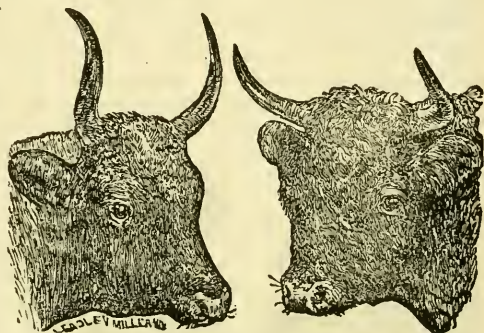


LEADLEY MILLER

HEADS OF HEREFORDS.

have been imported into Canada, and it is probable that some of them will be at the Fair.

The *Ayrshire* is the great dairy breed of Scotland. It has not much aptitude to fatten and the beef is not of first-rate quality. A cross with a



LEADLEY MILLER

HEADS OF WEST HIGHLANDS.

it is necessary to take into consideration the object for which the animals are kept, and also the character of the soil and climate. On rich grazing lands, in a mild climate, and where the object is

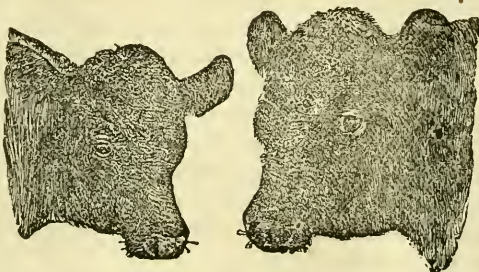


LEADLEY MILLER

HEADS OF NORTH-DEVONS.

Short-horn, however, makes a useful milking and grazing animal. On medium soils, they are considered the best dairy breed in Great Britain.

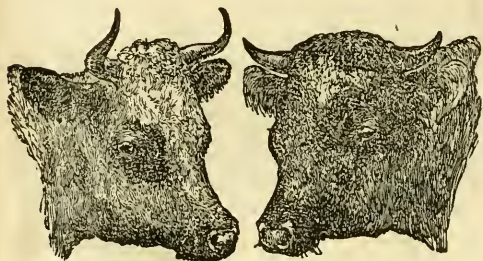
The *Alderneys*, or *Jerseys*, are a small breed of cattle, celebrated for the richness of their milk. It is said that the Ayrshires are indebted to this breed for their milking qualities. The chief differ-



HEADS OF GALLOWAYS.

ence between them is that the Ayrshires are celebrated for the *abundance* of their milk—the Alderneys for its quality. For those who require rich milk, they have no superiors; but for ordinary dairy purposes they are inferior to the Ayrshires. In determining which of the various breeds to select, we need hardly say to our young friend that

Herefords. On the other hand, in a cold and hilly region the West Highlands and Galloways will be preferable on account of their hardiness and their capacity to thrive on scantier feed. Under such circumstances it will be best to merely raise the cattle

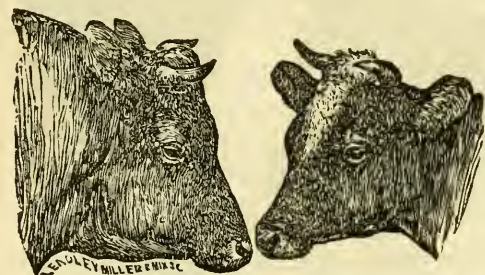


HEADS OF AYRSHIRES.

and sell them when they arrive at maturity to those who can *fat* them in richer pastures and in a milder climate. The rapidity with which they put on fat under such circumstances is wonderful.

On medium soils, the Devons have no superiors.

For dairy purposes exclusively, the Ayrshires and well-selected Natives are ordinarily the most profitable. A Native with a dash of Shorthorn or



HEADS OF ALDERNEYS.

Devon blood, makes a very useful animal for the dairy and the shambles combined. We have had no experience in crossing the Native cows with Ayrshire bulls for dairy purposes, but we should think such a cross would produce excellent milkers.

After all, in a general point of view, one of the great advantages of introducing thoroughbred animals into a district, is to improve the ordinary stock of the neighborhood. This is a great point to be borne in mind. And it must be admitted that the Shorthorns have ordinarily no superiors for this purpose.

W. F. RADOLIFFE, of Rushton Rectory, writes to the *Cottage Gardener* that he has found blue vitriol (sulphate of copper) a sure cure for white mildew on roses, both for out-door plants and the more delicate pot-plants. He says: "I may observe, by the way, that hot and close situations are sure to produce white mildew in pot-plants."

THE AGRICULTURE OF THE STATE OF NEW YORK.

IS IT RETROGRADING OR ADVANCING?

THE Census returns of our *Agricultural Productions in the State of New York*, for 1860, afford some interesting results as compared with those of 1850. As they relate to the crop of only a single year in either case, which may have been a particularly bad or good season, and therefore not a fair standard for nice comparison, and as they are open to errors in many other respects,—the details they give us are not to be received with too great confidence; and yet they supply some information which we could obtain in no other way.

FARM IMPLEMENTS AND MACHINERY during ten years past, have been constantly employed to a greater extent upon our Farms. While the surface of "improved land" in the State has been increased less than *one-sixth*, the value of the implements employed in its cultivation, has advanced *one-third*, or in fully a double ratio. This increase is from twenty-two million dollars in 1850, to twenty-nine in 1860—an increase averaging \$700,000 *each year*, expended by the farmers of the State of New York in new implements and machinery, beyond making up for the wear and tear of old ones. In 1850 our farmers had \$177.97 worth of implements, &c., to each 100 acres of improved land, against \$202.87 in 1860. In the accuracy of these figures we have no very great confidence, because there must be a great deal that should properly be included under this head, which the farmer does not stop to estimate the value of, when he hands in his census returns; but as they are probably *equally complete at both dates*, we may safely conclude that the *increase* is not overstated. It may be added that our associate, MR. THOMAS, (see *Rural Affairs*, vol. 2, p. 131,) estimates the value of implements, wagons, &c., necessary for the proper management of a hundred acre farm, all improved land, at \$474.50, and this does not include a mower or reaper. The common estimate in England varies from £1 to £2 per acre, or from \$5 to \$10, and even considerably more where steam machinery is employed.

WHEAT CULTURE.—The number of bushels of Wheat raised in this State in 1860 was 8,861,099, against 13,121,498 in 1850, and 9,092,402 in 1855. The first return of the crops of the State was in 1840, when our wheat crop was 12,286,418 bushels. We fail to see in these figures anything calculated to awaken such fearful despondency as some writers have fallen into with regard to the "decline in our Agriculture." They are *all the figures we have*; anything relative to larger aggregate crops in earlier years, is simply an estimate with no basis of truth to rest upon, and with nothing whatever to *prove* that the average yield per acre *was ever larger than it is to-day*. — — — By the above figures we see that our wheat crop was larger in 1850 than in 1840, although the difference is perhaps no more than enough to prove that we certainly were not *declining*; for the ten years from 1850 to 1860 there is a large decrease, which mainly took place during the first half of the decade, at a time when the great West was in the most rapid course of development, and when at the same time the insects were consuming our crop at a rate perhaps unparalleled before or since. Under the circumstances the only matter of surprise is that our

wheat crop has maintained itself so well; and the fact that it has done so, against both Western competition and insect depredators, is something to be proud of rather than to mourn over. — — — And what does the decrease in the wheat crop for the last ten years, amount to? In bushels it is 4,440,399—in dollars and cents probably a little short of \$5,000,000. Now the increase in the annual value of the produce of our market gardens, alone, is about \$3,400,000; add increase in potatoes, rating them at 20 cents a bushel, and, in these two items alone, we have made up the loss in our growth of wheat with five or six hundred thousand dollars over! But every other kind of grain than wheat has increased; against a loss of $4\frac{1}{2}$ million bushels of wheat, we have a gain of over 2 million bushels of Indian corn, $8\frac{1}{2}$ millions of oats, and over 2 millions in rye, barley, peas and beans.

Our LIVE STOCK is valued at \$103,856,296 in 1860, against \$73,570,499 in 1850, an increase of \$30,285,797. This is equivalent to a capital invested in Live Stock by our farmers averaging \$722 for every 100 acres of improved land in 1860, against \$593 for every 100 acres of improved land ten years before. The estimate of Mr. THOMAS (see above reference to *Rural Affairs*) was \$1,010 per 100 acres as the necessary investment for Live Stock, and the English estimates run all the way from £2 to £6 per acre, or from one to three thousand dollars per 100 acres. — — — Our Milch cows have increased in number more than one-fifth; working oxen and other cattle, as well as sheep and swine, have fallen off, but the value of animals slaughtered has nevertheless increased fully one-sixth, and our production of Butter has been enlarged almost 30 per cent. The quantity of cheese made, shows a small decline. Taking the equivalent in cheese and butter, and comparing the total production with the reported number of milch cows in the State, we have 103.4 lbs. of Butter as the average production per cow in 1850 against 106.1 lbs. in 1860—a small change, but, such as it is, in the right direction.

IS THE CHARACTER OF OUR STOCK IMPROVING?—We think the Census returns afford ample proof of a gratifying change in this direction—a change showing that where we have discarded in number, we have advanced in quality. While the total number of live stock of all kinds is returned at only 6,006,494, in 1860, against 6,797,109 in 1850—a decline of nearly 800,000 head, or more than 10 per cent., the value is reported as aggregating a sum 40 per cent. greater than ten years ago. Throwing the horses out of the calculation, we have 5,501,206 cattle, sheep and swine in 1860, against 6,349,132 in 1850, or a reduction of over 13 per cent.; but the account with them stands as follows:

Value of Animals Slaughtered, 1860.....	\$15,341,418	
do. do. do. 1850.....	13,573,983	
Increase.....		\$2,267,435
Value of Butter at say 15 cts. per lb., 1860.....	\$15,464,591	
do. do. do. 1850.....	11,964,914	
Increase.....		3,499,677
Increase in Meat and Butter obtained.....		\$5,767,112
CONTRA—Decrease in Wool grown, 616,823 lbs., say at 40 cents to give a liberal valuation.....		\$246,781
Decrease in Cheese, 1,193,126 lbs., say at 6 cents.....		71,587
Decrease in Wool and Cheese.....		313,318
Net increased Annual Revenue from the Live Stock of the State.....		\$5,443,794

In other words, take cattle, sheep and swine altogether, and they yield us a dollar a head all around better than ten years ago, and an aggregate five millions and a half of dollars greater, while we have nearly a million of them less to look after. If there is any reliance whatever to be placed on our Census returns, and even allowing that in some unaccountable way the census-takers of 1860 may have been animated by a spirit of exaggeration which did not influence their predecessors in 1850, we cannot yet avoid the conclusion that our breeders of improved stock have done a vast work for the Agriculture of New York during the decade just concluded.

As an illustration in detail, of the facts represented above in gross, take the sheep: We deduct above for a diminished yield of wool, but the figures prove that it is now a *much better yield per head* than in 1850. The number of sheep reported, young and old together, in that year, was 3,453,241, yielding 10,071,301 pounds of wool, or an average per head of 2.91 pounds. In 1860, there was a total of 2,617,855 sheep, and a yield of 9,454,473 pounds of wool, an average per head of 3.61 pounds; and a comparison of these figures shows what is almost a remarkable coincidence, between the ratio of decreasing numbers and increasing weight of fleece—the sheep showing a decrease of 24 per cent. in number, and the wool an increase of 24 per cent. in weight, per head. Thus while the number of sheep has fallen off about *one-fourth*, the actual yield of wool only exhibits a reduction of something less than *one-sixteenth*.

We derive the foregoing conclusions from the abstracts of the Census returns of this State (Agricultural) to be published in the forthcoming Volume of the Transactions of the State Ag. Society. Col. JOHNSON has prepared to accompany them, the table quoted below, showing an

Increase in the following aggregates and productions since 1850

Improved acres of land, Increase in 10 years.....	1,972,427
Cash value of farms, do.....	\$248,796,951
Value of farm implements, do.....	\$7,081,769
Horses, number of, do.....	56,721
Asses and mules, number of, do.....	590
Milch cows, do.....	192,310
Value of live stock, do.....	\$30,285,797
Rye, bushels, do.....	638,702
Indian corn, bushels, do.....	2,202,648
Oats, bushels, do.....	8,622,319
Tobacco, lbs., do.....	5,651,393
Cotton, lbs., do.....	280
Peas and beans, bushels, do.....	867,698
Irish potatoes, bushels, do.....	11,049,027
Sweet potatoes, bushels, do.....	1,595
Barley, bush lbs., do.....	601,608
Buckwheat, bushels, do.....	1,942,350
Orchard products, do.....	\$2,064,430
Wine, gallons, do.....	52,232
Market gardens, value products, do.....	\$3,331,596
Butter, lbs., do.....	23,331,185
Clover seed, bushels, do.....	13,710
Hops, lbs., do.....	7,119,248
Flax, lbs., do.....	573,599
Maple sugar, lbs., do.....	453,374
Molasses, gallons, do.....	55,312
Molasses, sorghum, gallons, do.....	265
Beeswax and honey, lbs., do.....	734,290
Value of animals slaughtered, do.....	\$2,267,438
Population, do.....	783,334

Decrease of the following productions since 1850.

Working oxen, number.....	97,807
Other cattle, do.....	39,069
Sheep, do.....	835,236
Swine, do.....	103,074
Wheat, bushels.....	4,440,399
Wool, lbs.....	616,823
Cheese, lbs.....	1,193,125
Hay, tons.....	164,004
Grass seed, bushels.....	14,321

Flax seed, do.	978
Silk cocoons, lbs.	1,515
Home-made manufactures.	\$562,486

There are some other facts proven by this table, to which attention might be called. One of them is the large increase manifested (over two millions of dollars) in the Orchard products of the State. Another is the revival of the potato crop, owing doubtless to the gradual diminution of losses from the rot: the potato crop of the State in 1840 was reported at 30,123,614 bushels; in 1850 it was scarcely one-half as large, viz., 15,398,362 bushels; in 1855 it was still somewhat smaller, 15,191,852 bushels; but during the five years to 1860 it had taken a new start, and amounted by the census of that year to 26,447,389 bushels.

It will also be noticed that there is an increase in the area rated as "improved land," amounting to nearly two millions of acres for the past ten years, or 16 per cent. upon the 12,408,968 acres reported under this head in 1850. We have been at the pains to make a careful money estimate of the items in the above table, showing an increase and decrease respectively, with the details of which we need not now trespass upon the patience of our readers. Suffice it to say, that the net pecuniary returns of the agriculture of the State, are thus proven to have increased in just about the same ratio as the extent of land which we are cultivating—showing conclusively that if the returns of our crops per acre are not enlarging as we wish they might, we are fully keeping them up on our old lands, and constantly adding a considerable surface every year to their extent. This, it must be added, is done—probably by the aid of our improved machinery and implements—with little or no addition to the *farming population* of the State, for that is nearly stationary, the increase of three-quarters of a million during the past decade having been confined almost wholly to the enlargement of our cities. The exhibit, on the whole, should therefore be considered a gratifying one to the Farmers of the Empire State.—*Country Gentleman*.

GATHERING APPLES.

The apple crop, this year, says the New Hampshire *Journal of Agriculture*, will be large and of good quality. Much of its value depends on the way in which it is gathered. If you put off the job until the hard frosts are upon your heels, and then rush into the orchard with several hands, men, women and children, shake, pull and haul your trees, thresh them soundly with long poles—bring your fruit to the ground two-thirds bruised, one-half pierced with stiff straws—scramble them into barrels and knock the heads hastily upon them, you will have a good long job of picking out decayed apples, fall and winter, and will get the lowest market price for your crop. On the other hand, take the time wasted in picking them over to cull out the worthless ones in winter, hire help if necessary—go about your gathering systematically and in order. Provide good ladders and a pair or two of high movable steps—they are easily made, if not by yourself, by any village carpenter, and are always useful about the house or garden. Get a smooth, light pole—two or three, of various lengths, will be convenient—take a common salt bag, or, better still, have some made of

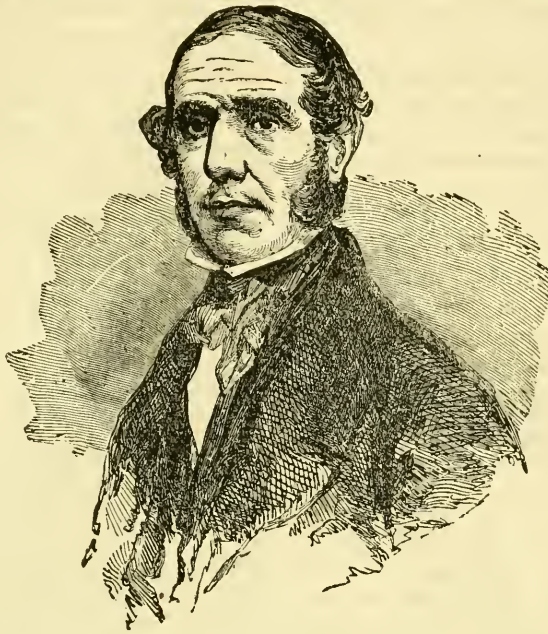
stout ticking or drilling, and distend the opening with a piece of hoop iron, bent in circular form, of sufficient form to let in two or three apples at a time—sharpen the outer, upper edge of the hoop. Handle baskets, holding a peck or more, are also very handy when suspended by a hook on the branches, while you are on the ladder or in the tree. Thus armed, you first carefully pick off all within reach, and put into baskets or barrels, without bruising. And then with pole and bag attached firmly to the end of it by the iron hoop, you can cut off and catch apples on the tallest limbs. Of course we speak of valuable orchards. All things considered, the careful process is the easiest and consumes no more time than the other. You get good fruit, and it brings the highest price; your trees are not banged or bruised to death, nor the heads of the children cracked by the falling apples.

HIGH FARMING.

THE New York *Evangelist* has a sensible article on the Fertilization of Soils, in which farmers are recommended to try guano and superphosphate. We are not prepared to say that these will pay, at the present prices of produce, but the following remarks we can most cordially endorse:

"The purchase of fertilizers, in about the same proportion as they increase the crops, increases the natural fertilizers of the farm. The fuller the barn is filled this year, the more fertilizing matters are there to go back into the soil next year. The soil is the farmer's bank of deposit. It is the safest bank in the world if the deposits are discreetly made. High farming, with large crops, is more lucrative than low farming with consequently small crops. We are not of those who advise rashly; but we positively believe that the majority of farmers would be better satisfied and more richly rewarded if they would feel their way cautiously, but not very slowly, to a higher style of farming—one which undoubtedly they would find more expensive when they reckoned by the acre, but which we verily believe would prove less costly when reckoned by the qualities produced; less profitable perhaps the first year of trying it, but pretty sure to be more remunerative the second year, and still more the third, and onward."

NEW MODE OF CATCHING TROUT.—LEVI BARTLETT describes in the *Country Gentleman* some trout ponds on the farm of Col. TAPPAN, of Bradford, N. H., and speaks also of the mode of feeding. Last winter, after the ponds had frozen over, he states that a boy was sent to feed the trout with chopped meat. Having cut a hole through the ice and put in the meat, the boy laid down with his face near the water to watch the fish, when a trout grabbed him by the nose, and the boy, by a sudden jerk of the head, threw the fish upon the ice. He thus obtained a trout of three-fourths of a pound weight, but at the expense of a sore nose for three weeks.



James F. Johnston

THERE are few men to whom Agriculture in England or America is more indebted, than to the late Professor of Chemistry in the University of Durham, Scotland, JAMES F. W. JOHNSTON.

He was born at Paisley, about the year 1796. Like many other men who have risen to scientific eminence, young JOHNSTON was mainly dependent on his own efforts for his education. He made rapid progress, and was in a few years able to give private instruction to pupils in the University of Glasgow. The money thus obtained enabled him to prosecute his own studies with increased facility. In 1825 he opened a school at Durham. In 1830 he married a lady of some property, and his circumstances being thus improved he determined to give up his school, and carry out a plan he had long conceived of devoting himself to the study of chemistry. He repaired to Sweden and became a pupil of the celebrated BERZELIUS. On his return he was appointed Chemist to the Agricultural Society of Scotland and Professor of Chemistry and Mineralogy in the University of Durham.

He now devoted himself to the preparation of works on the relation of chemistry to agriculture. He published a "Catechism on Chemistry and Geology," which has been translated into almost

every European language, and has gone through thirty-three editions. It has had a large sale in this country. His "Lectures on Agricultural Chemistry and Geology," delivered before the Durham County Agricultural Society, were published in 1844, and added greatly to his popularity. It went through several editions. It was reprinted in this country, and is one of the most useful and popular works we have on the subject.

In 1849, at the invitation of the New York State Agricultural Society, Prof. JOHNSTON visited this country. At the N. Y. State Fair of that year, held at Syracuse, he delivered an address on European Agriculture. In January, 1850, he delivered before the members of the Society and the Legislature, at Albany, a series of lectures on Agricultural Chemistry, which were afterwards published. He also lectured at Boston and New York, and made an agricultural survey of the province of New Brunswick.

As the result of his visit to this country, shortly after his return appeared two volumes of "Notes on North America," in which he said some things which were not at all complimentary, but which did us no harm.

His last work, and the most popular one, was "Chemistry of Common Life," which originally

appeared as a series of magazine articles, and were afterwards published, both in England and America, in book form.

In the summer of 1853 he was traveling on the continent, in his usual health, when he was suddenly seized with spitting of blood, which terminated in a rapid decline, and he died at Durham on the 18th of September of that year.

McCORMICK'S NEW REAPER IN ENGLAND.

On the 14th of August McCormick's New Self-Raking Reaper was tried in England, and judging from the following report in the London *Times*, seems to have given great satisfaction:

In 1851 McCormick's American reaping machine at the Exhibition created a greater sensation in its way than either Powers' statue or Hobbs' locks. Its fame at once, of course, raised up for it a host of antagonists and imitators. * * * Since 1851 McCormick's patent for these machines has expired in America, and, of course, the attempt to renew it was violently opposed by all who had, or fancied they had, a better reaper themselves. * * * Hence Mr. McCormick was driven to invent another and a better machine, and it was this which was tried yesterday, and the performance of which we commend to the notice of our country readers. The old machine, as we may term it now, was one which cut the corn, and as it dropped back upon the platform behind the cutters turned it off in "swathe"—i. e., left it in a continuous roll alongside the track of the machine. In very moist countries this swathe delivery is rather an evil, and during wet seasons the machine has been often left unused altogether. In addition to this drawback a great amount of manual labor is, of course, necessitated to collect the swathe into sheaves, and this too must in some cases be done before the return of the machine over the same track. The object, therefore, has always been to invent a machine which will deliver on the ground the cut corn in sheaves ready for binding, and such a machine Mr. McCormick has now invented. Visitors to the Exhibition will see a similar one in the rather empty court of the United States.

The new machine is founded entirely upon McCormick's old machine as made by Burgess & Key, the new patent consisting simply in the introduction of an automaton rake, which, at regular intervals, by one rapid sweep, draws the corn on the platform together, and, with a quick turn, throws it aside in a loose sheaf out of the way of the machine. This machine has been tried once before in England among some of the heavy Essex crops, when its performances exceeded the most sanguine expectations. Yesterday it was publicly tried again, in the presence of a number of gentlemen farmers, on Mr. Dixon's farm, about three miles beyond Hemel Hempstead. This trial was made under the most unfavorable circumstances; in fact, under circumstances which the farmers present contended should have prevented the machine being tried at all. The night and morning had been very wet, and the rain was still falling sharply when the machine, drawn by two horses,

and wielding its fans and rake in the most aggressive manner, was brought to a field of twenty-one acres, covered with a very heavy crop of red lammas wheat, completely saturated and bent down by the rain. Along the edge of the field, where the ground was very rough, and the corn straggling and beaten down, the machine was turned. Much misgiving was expressed before starting as to the power of the rake to act on such ground against wind and rain, and to remove the soddened crop from the platform into regular sheaves. A very few moments, however, sufficed to put these fears at rest. The reaper went to its work at the rate of about three miles an hour, making a clear cut broad track of 5 feet 6 inches wide, and turning out neat and remarkably large loose sheaves at intervals of about 15 feet apart. The movements of the reaper were exact and perfectly noiseless, and it was easily turned in any direction. An ordinary agricultural laborer at first drove it. Afterward Mr. Dixon took the place of driver; but the results were the same in both cases. The bunches were well laid, the cut was clean and close to the earth, and the spacing between the sheaves as clear and accurate as if every foot had been measured. At one part the corn was tangled and badly flattened—badly enough to have offered difficulties to the ordinary reaper; but the machine went through it with the same ease and regularity as through all the rest. The horses were then turned direct into and across the thickest part of the crop from corner to corner of the field, and though, as a matter of course, the passage of the animals drawing the machine trampled down a large portion of the stalks before its track, the reaper still worked as cleanly and efficiently as ever. First came one of the fans, pushing its *quantum*, when cut, on to the platform; then a second, third and fourth, when the rake swept round in a semi-curve and turned the whole mass out in a thick sheaf on to the ground. The horses appeared to draw it easily—more easily, in fact, than the old machine, while, from the strength and simplicity of the improved mechanism, it was evident that, even in the most inexperienced hands, nothing but wilful damage could derange its slight but strong machinery.

It is estimated that the new reaper can reap and stack in sheaves from sixteen to eighteen acres of wheat per day, at a cost, including wear and tear of plant, food of horses, &c., of 1s. 6d. (36 cents) per acre. Manual labor costs from 7s. 6d. to 10s. per acre, and a good reaper only averages from half to little over half an acre a day. The new machine effects a saving of at least one-third of the manual labor that was still necessary with the old reaper.

A NOVEL WAY OF CURING A BREACHY HORSE.—

A correspondent of the *Iowa Homestead* was out riding the other day with a friend, and observed that one of the horses had a hole in each ear. On inquiring the cause, he learned that it was to keep the horse from jumping. "Why," said he, "a horse don't jump with his ears." "You are mistaken," replied his friend; "a horse jumps as much with his ears as with his feet, and unless he can have free use of his ears he cannot jump." He ties the two ears together, and has no more trouble with the horse. We give this for what it is worth.

MANAGEMENT OF HONEY BEES.

THE question is often asked, How far apart should hives be set in an apiary? If I were to consult no other feature of bee-keeping but that of space between the hives, I should set them around singly, several rods apart; but that distance is impracticable, where many hives exist, and is not advisable in any case. I have, during the last few years, been compelled to place my hives quite close to each other for the want of space. They are in rows about six feet apart, and not over six or eight inches apart in the rows, sitting on stools only four inches high, with a close board-platform upon the ground, four feet wide, which keeps the hives free from grass and weeds.

I find no disadvantage in having my hives so close together; but if they were to rest upon a level stand or shelf, the bees would often, when the hives are so full as to cluster outside, mix with those of adjoining hives and fight and destroy each other to some small extent. In my case, the stool-shape of the stands prevents the bees mixing, as they go down no lower than the floor of the stool when they cluster out.

The stools, or stands, are made by sawing off scantling two or three inches thick by four inches wide, fifteen inches long, and nailing strips of pine boards upon them so firmly that no warping can take place. In former times I was led to believe that the stands should be from eighteen to twenty-four inches from the ground; but experience has taught me that bees do equally well when only four inches from the ground, on a platform, as above stated.

It would appear that when hives of bees are set in a close, continuous row, twenty to fifty in a line, and only a few inches apart, and all the hives as much alike as two beans, that the bees would often fail to find their own hives and would enter others, and consequently be destroyed. Such, however, is not the case; and how they are enabled, on their return from the fields, often after twilight has set in, to make few or no mistakes as regards the positions of their own houses, is a mystery that I am unable to solve, except on the theory that their sight is so much keener than that of man that they see something peculiar to their own hives, when all are of the same size, pattern and color, that we are unable to discover. Occasionally I have noticed bees laden with pollen alight upon the stand of a neighboring hive and seek to enter, but instantly discovering her mistake, take to the wing again, make a giratory flight of a few feet in the air, and alight at her own domicile. It is probable that bees that are not laden with pollen often make similar mistakes, but as no fighting ensues I consider such occurrences of no essential consequence.

When swarms issue, and are placed near other hives, I generally place something in front of their hives, to enable the queens more easily to mark the location of their homes on returning from their flights to meet the drones, which occurs but once; and they are much more liable to get lost and enter the adjoining hives than the working bees are, which sally out fifty or more times a day. A strip of board, old newspaper, or any thing that will plainly denote or mark the hive, will answer, if laid in front of it and left there about a week.

This is the season to feed such families of bees as have failed to store up enough honey for their winter's consumption, unless it be advisable to "take up" such families or unite them with others. It is not advisable in the latitude of Central New York and further north to attempt to winter a family with less than *two quarts* of bees. Any less number will generally perish on account of being unable to generate sufficient warmth to keep them from freezing to death when there is plenty of honey in the hive. Supplying families short of honey with caps, or boxes of comb-honey, will not always save them from starvation, when the winter is very cold and long-continued, owing to the bees not being able to ascend into these caps to obtain the honey. It is, therefore, better to feed strained honey, to be carried into the cells of the combs at once, if it be done in a manner not to produce robberies. The manner of feeding I have before fully explained in the columns of the *Farmer*, and do not consider it expedient to give the details on this occasion.

Clinton, N. Y.

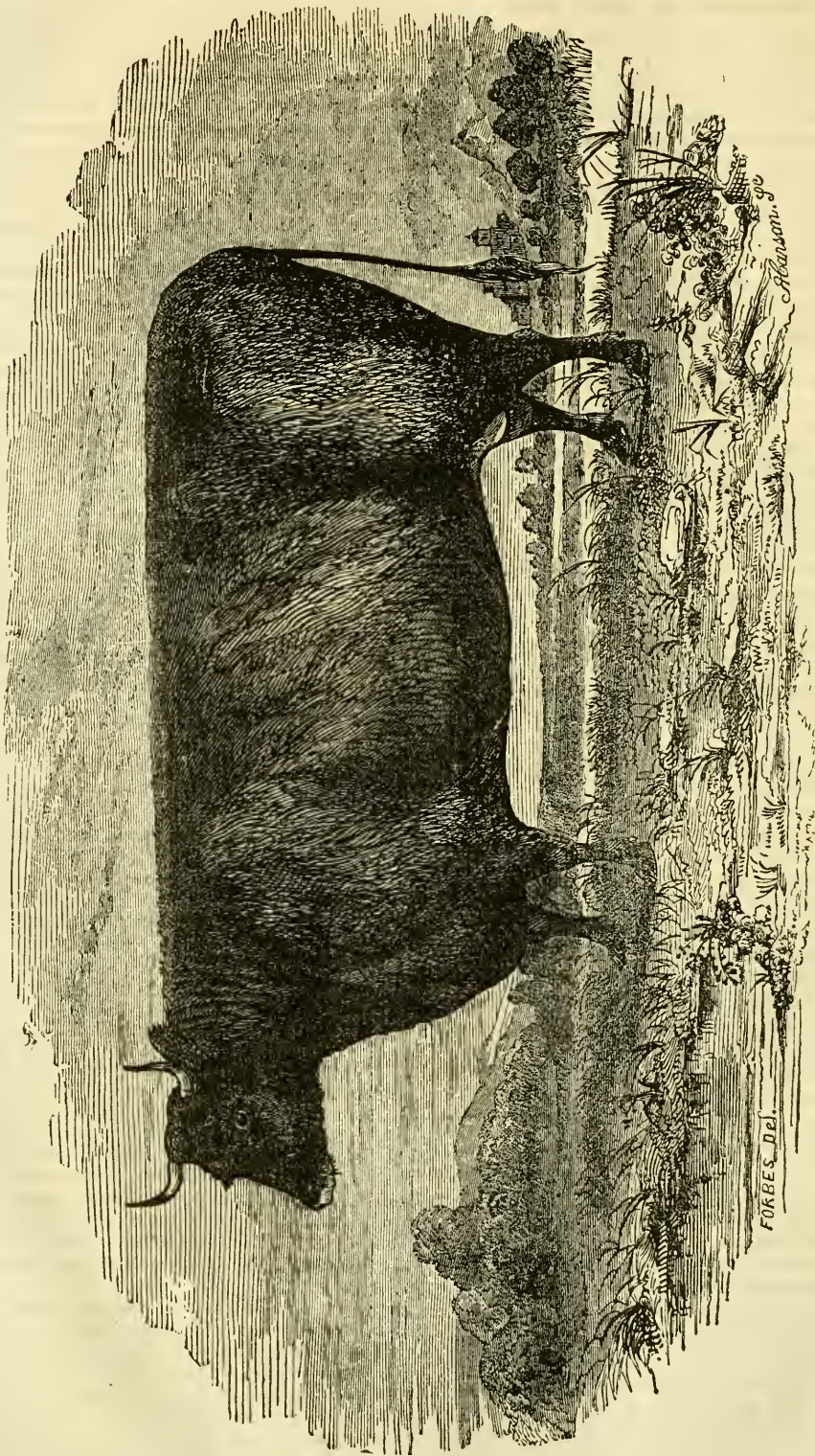
T. B. MINER.

A PRAIRIE FARM.

A CORRESPONDENT of the *Farmer's Advocate*, Chicago, gives the following account of a prairie farm which he recently visited:

"I visited the farm of Messrs. STEVENS & MC-COHNIES, who have about eight thousand acres of land in this county. They have, at this time, three thousand acres fenced with cedar posts and boards, put up in the most substantial manner. In fact, their motto is: 'Do what you do, well.' They have this year twelve hundred acres of wheat—the very best prospect for a good crop that I have seen. They prefer wheat to weeds—plow all their land in the fall—sow from two to two and a half bushels per acre—as soon as the frost begins to leave the ground in the spring. The result is, they got 27 bushels average per acre last year. They have 700 acres of corn, which looks very fine for this season. Their corn last year gave them 55 bushels average per acre. They fed this past season 250 beef cattle, whose average weight at home was 1,325 pounds, and sold in the Chicago market at \$3.30 per cwt. They have 700 hogs on this farm, work 21 teams, employ 28 hands at \$15 per month, and feed on the farm 125 bushels of corn per day. They have 160 acres of tame grass for pasture field. They also have a half section of land of the estate of the late HON. DANIEL WEBSTER—the 'God-like Daniel of Constitutional fame.' The most of their lands were purchased of the Government at \$1.25 per acre, in the years 1852-'53. They are breaking 640 acres this year to add to their farm.

"Farmers of Illinois, would you know the secret of their success? They adopt the motto: 'Whatsoever thy hand findeth to do, do it with thy might.' 'Never leave until to-morrow, what ought to be done to-day.' Keep, if possible, one day ahead of time; that is, plow, sow, reap, and mow, sooner than your neighbor, and as soon as the weeds begin to show themselves, call early next morning—'Up boys, and at them!'"



DEVON COW.

DEVON CATTLE.

We have the pleasure this month of presenting to the readers of the *Genesee Farmer* a beautiful portrait of a Devon Cow. S. L. GOODALE, Secretary of the Maine Board of Agriculture, in his excellent work on the "Principles of Breeding," remarks as follows in regard to the qualities of Devon cattle:

"The North Devons are deemed to be of longer standing than any other of the distinct breeds of England, and they have been esteemed for their good qualities for several centuries. Mr. GEORGE TURNER, a noted breeder of Devons, describes them as follows: 'Their color is generally a bright red, but varying a little, either darker or more yellow; they have seldom any white except about the adder of the cow or belly of the bull, and this is but little seen. They have long yellowish horns, beautifully and gracefully curved, noses or muzzles white, with expanded nostrils, eyes full and prominent, but calm, ears of moderate size and yellowish inside, necks rather long, with but little dewlap, and the head well set on, shoulders oblique with small points or marrow bones, legs small and straight, and feet in proportion. The chest is of moderate width, and the ribs round and well expanded, except in some instances, where too great attention has been paid to the hind quarters at the expense of the fore, and which has caused a falling off, or flatness, behind the shoulders. The loins are first-rate, wide, long and full of flesh, hips round and of moderate width; rumps level and well filled at the bed; tail full near the rump and tapering much at the top. The thighs of the cows are occasionally light, but the bull and ox are full of muscle, with a deep and rich flank. On the whole, there is scarcely any breed of cattle so rich and mellow in its touch, so silky and fine in its hair, and altogether so handsome in its appearance as the North Devon, added to which they have a greater proportion of weight in the most valuable joints and less in the coarse, than any other breed, and also consume less food in its production.

"As milkers they are about the same as most other breeds; the general average of a dairy of cows being about one pound of butter per day from each cow during the summer months, although in some instances the very best bred cows give a great deal more.

"As working oxen they greatly surpass any other breed. They are perfectly docile and excellent walkers, are generally worked until five or six years old, and then fattened at less expense than most other oxen."

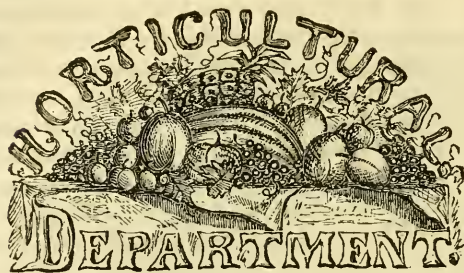
"The Devons have been less extensively, and more recently, introduced than the Short-horn, but the experience of those who have fairly tried them fully sustains the opinions given of them, and they promise to become a favorite and prevailing breed. The usual objection made to them by those who have been accustomed to consider improvement in cattle to be necessarily connected with enlargement of size, is, that they are too small. But their size, instead of being a valid objection, is believed to be a recommendation, the Devons being as large as the fertility of New England soils generally are *capable of feeding fully and profitably*.

"Their qualities as working oxen are unrivalled, no other breed so uniformly furnishing such active, docile, strong and hardy workers as the Devons, and their uniformity is such as to render it very easy to match them.

"The Devons are not generally deep milkers, but the milk is richer than that of most other breeds. It is, however, as a breed for general use, combining beef, labor and milk, in fair proportion, that the Devons will generally give best satisfaction, as they are hardy enough to suit the climate, and cheaply furnish efficient labor and valuable meat."

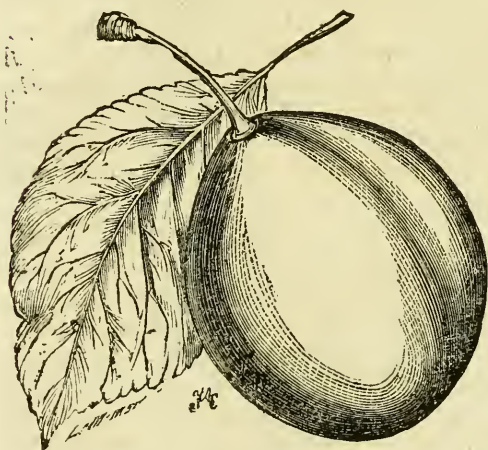
TURNIPS DO NOT INJURE THE LAND.—SANFORD HOWARD, of the Boston *Cultivator*, recently visited the farm of J. C. TAYLOR, of Holmdel, N. J., so well known as a breeder of South Down sheep, and states that Mr. TAYLOR cultivates the sugar beet and Swedish turnip to a considerable extent for his sheep. When he first commenced to raise roots, his neighbors told him that the turnips would injure his land for the production of grass. "His experience," says Mr. HOWARD, "proves that they were mistaken; for not only does the land produce grass as well as it ever did, but some comparative experiments have proved that grass grows *better* after turnips than after the crops ordinarily cultivated in the neighborhood. On one field, a part of which only had been in turnips, the line of the last row could be distinctly traced and distinguished from the part where there were no turnips, by the thicker and greener sward."

THEY have had in Lancashire not only hard times but bad weather; so that the operatives in the mills, who have been in the habit of raising quite a variety of vegetables in their gardens, seem to be prevented this year not only from earning an honest, respectable living in the mills, but also from enjoying some choice flowers and vegetables of their own raising.



WALKS AND TALKS IN THE GARDEN.—No. VI.

"PLUMS have suffered less from the curculio this year than usual, and if we had not so many peaches they would prove quite an acceptable desert fruit. Here is a fair specimen of the *Diaper Rouge*, plucked from the tree that our friend HOCHSTEIN sketched a few years since for the *Rural Annual*.



DIAPER ROUGE.

"Did you ever preserve plums in whisky? I knew a lady in this city who kept a quantity of Damsons by simply putting them in whisky. They kept admirably, and were excellent, and the whisky itself, I am told, was — not thrown away. They should not be too ripe.

"The reason why caniflowers run up and produce such small heads is not owing, as I believe, to the soil being too rich or too poor, too wet or too dry; not to early planting or to late planting, but simply and purely to *bad seed*.

"I do not mean that the seed is bad in the sense that it will not grow. The worst seed often grows the best; but it is bad seed because it has not been properly *bred*.

"We want thoroughbred seed just as much as thoroughbred cattle; and by thoroughbred I mean that it must have its desirable qualities so often re-

peated as to become a *fixed* characteristic of the plant. For instance: The turnip, in its wild state, has little or no bulb, but runs up to seed the first year. Now, suppose we had nothing but this wild turnip seed, what should we have to do in order to get a plant that would form a bulb and not go to seed the next year? Why, we should select those plants which manifested the greatest tendency to form bulbs; then we should allow them to go to seed, pulling out all the others. From this seed we should probably get a few plants with a still greater tendency to form bulb; these we should save and allow them to seed, destroying all the rest. By sowing this seed again, and repeating the process for several years, we should at length get a plant with a large bulb, and which did not go to seed until the following year.

"Now, when you have gained the object of your desire, after years of careful selection, what would you do? Would you let all your plants go to seed, whether the bulbs were large or small? If you did, the plants would soon run back into their old habits, and all your labor would be lost.

"After a turnip with the desired bulb-forming qualities had been obtained, you would carefully save the seed and sow it. But it would be found that a few plants would still retain some of their old habits of running up to seed, or at least a tendency to do so, and it would be necessary to reject all such, and to continue the process of careful *breeding* until the desirable qualities were *fixed*.

"To raise good turnip seed, it is necessary to select good bulbs and *transplant them*. If, as is now sometimes done in England, they are allowed to go to seed in the drills where they are grown, the plants raised from such seed will have a tendency to run too much to top. The transplanting seems to arrest this tendency. I cannot but think it would be desirable for our farmers to raise their own turnip seed, instead of, as now, sowing that which is imported from England, and which *may* have been raised in the careless manner alluded to. We could thus be *sure* of having good seed.

"An instance on a large scale once came under my observation, which illustrated, in a deplorable manner, this tendency in the turnip to return to its original habit of running up to seed the same year instead of forming bulbs. JOHN HILDITCH, of Stanton, sowed some fifty acres of turnips *very early* in the season, thinking to get a larger crop than by sowing later at the usual time. The plants came up and grew splendidly, and everybody thought he would have a magnificent crop; but

the weather continued mild late in the fall and winter, and lo and behold! the whole field showed an unmistakable tendency to run up to seed, and he was obliged to turn his sheep into the field, and also to set men to work with scythes to cut off the starting tops! Under such circumstances of course the bulbs were pithy and poor, and the loss was very great.

"But what," you ask, "has all this to do with cauliflowers?" I will tell you: The head of a cauliflower is, like the bulb of a turnip, not the natural growth of the plant. It is the result of cultivation. The plant naturally would run up to seed without forming a head. We have, by careful *breeding*, obtained this desirable quality, but it is not of so permanent a character that we can dispense with care in raising the seed.

"To raise good cauliflower seed, we must sow the seed in September or October, and preserve the plants during the winter and let them head next spring. Some of the plants will form nice compact heads, while others will have a tendency to run up to seed. These latter must be pulled out, and only the good heads be allowed to go to seed. But unfortunately the seed-growers do not seem to understand this. Judging from the results, it would seem that they let all the plants go to seed whether they have good heads or poor ones. In fact, the seed is sometimes so poor that I am inclined to think they must cut all the good heads to eat and leave only the poor ones for seed!

"The same remarks will apply to cabbage; we should raise seed only from the best heads.

"Will you step into the cold graperly. The grapes are now ripe, and are worth looking at; or at all events they are not bad to take. Rose Chasselas has been ripe for some time.

"A cold graperly is not an expensive affair, and a little care and study would soon enable any one to manage it.

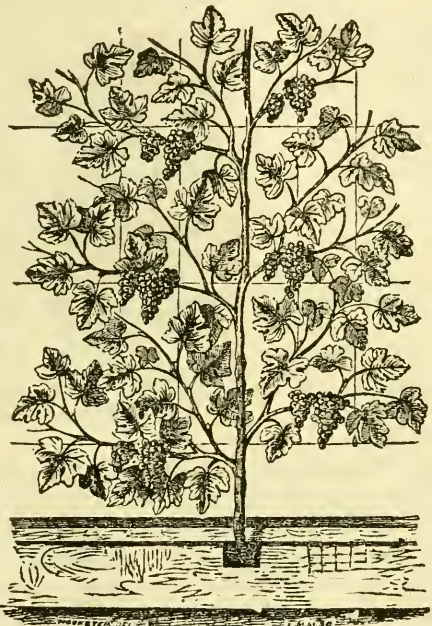
"The vines are planted three feet apart, and are trained on the double-spur system. HOCHSTEIN has made a cut of a section of one for the *Genesee Farmer*.

"I no longer fear mildew on the grape, either in the house or in the open grounds. Sulphur is a sure cure. I wish we had as certain a remedy for mildew on all other fruits.

"If we do not bestir ourselves, and that speedily, our orchards and gardens will soon be ruined by fungus in one or other of its various forms. Not a blighted branch, or a blighted leaf, or a blighted fruit should be allowed to remain in the garden.

Burn it at once. These spots on the apple are caused by a fungus; so are these on the pear. They do little damage at first, but nothing spreads so rapidly as fungus, and it takes but little time to become an alarming enemy.

"Some of my friends have been inclined to laugh at the opinion that the blight of the pear is caused by a fungus taken up by the roots. They think it could not spread so rapidly as to kill a good sized tree in a day. A little acquaintance with the habits of the fungi would show that the thing is not impossible; and besides, it is probable that the fungus has been growing in the tree for some time before it makes its appearance.



SECTION OF VINE TRAINED ON THE DOUBLE SPUR SYSTEM.

"But as a general rule trees do not blight all at once. A branch is attacked, the leaves die and the fruit shrivels. You cut it off. Perhaps the next day another branch dies, and you remove that also. The rest of the tree will remain healthy, or it will die, as it may chance. To me, all the effects point to a fungus taken into the circulation through the roots as the cause. Smut in wheat is *known* to be caused in this way. It can be produced at will by simply rubbing the wheat with the spores of the fungus; and it can be prevented by killing the spores on the wheat at the time it is sown.

"This afternoon I dug round a blighted pear tree, and I found what convinces me still more that the blight is caused by a fungus taken up by the



EUROPEAN LINDEN.

roots. There was in the soil round the roots of the tree a considerable number of old decaying roots, the remains of former trees. *All these roots were covered with fungus*, alive and growing. So far this was a confirmation of my theory. I then went to another tree attacked with the blight, and on digging round it found the same thing. I next went to another tree and removed the earth to a considerable distance round it, so as to lay bare the roots without disturbing them. I found, as before, plenty of old decayed roots covered with fungus, and on carefully examining the roots of the pear—or rather of the quince on which the pear was grafted—I found the fungus on the growing roots of the tree. It seems to me that this fact nearly settles the question. The fungus is there on the roots, and is doubtless taken up into the circulation of the tree and in time blights and destroys it. The blight has hitherto been confined pretty much to pears, but I have an apple tree which is now affected precisely in the same way.

“It is probable that a very heavy dressing of lime, thoroughly mixed with the soil, would kill the fungus on the old roots in the ground, and thus

prevent the blight. At all events it is worth trying.

“If I was going to plant out a new orchard, I would **BURN THE SOIL** before planting.

“You laugh; but nothing is easier. Hundreds of acres are annually burnt in England, and it is a recognized means of increasing the fertility of clay soils. It can be done with very little trouble and expense. You pare off the old soil two or three inches deep, and when the sods are dry enough to burn you start a fire with a little straw and wood, and place the sods around and over it, and as these burn put on more, and so on until you have a large heap. The sods are not burnt, but rather charred, as the fire should not be allowed to burn through.

“You would get a large quantity of charred sods and ashes. These, of course, contain no fungus. It has all been destroyed by the heat. These ashes and charcoal I would put in the holes round the trees, and I believe they would kill the fungus.

“Let us declare *Death to Fungi* of all kinds, and try to rid our gardens and orchards of what now threatens to be one of our most serious enemies.

The handsomest tree on the lawn is this European Linden. HOCHSTEIN made a drawing of it, but he has, for once, hardly done his subject justice. The branches trail on the ground, and spread out more than is shown in the engraving. As a shade and ornamental tree the Linden has no superior. This and the Mountain Ash are great favorites with me; and the Maple, and the Beech, and the cut-leaved Weeping Birch, and this White Oak, and the glorious American Elm, are—well, I scarcely know a tree that is not more or less a favorite. How can people enjoy life in a house with no trees around it?

A FRUIT GARDEN IN IOWA.

S. FOSTER, of Muscatine, Iowa, furnishes the *Homestead* with some interesting horticultural notes.

Strawberries have been a big crop—Wilson first, and Triomphe de Gand not far behind in productivity.

Of Currants, the Cherry is best; then White and Red Dutch—the White much the pleasanter. He had an acre, four years from planting. The crop was at the rate of 100 bushels per acre. In two years he thinks they will be double this.

He thinks he shall give up the Catawba and Isabella Grapes. The Concord is first. It is healthy, while his Catawbas mildew and rot. Concord and Clinton will stand the winter, and are as healthy as an oak tree with green acorns. Delaware pleases him, especially when he comes to eat the fruit. In quality it is best of all.

He had bragged a good deal about the good health of his pear trees on his white oak clay bluff. They look nice and healthy now, but the blight has made its appearance on five or six of them. In his dwarf pear orchard, six years old, no blight has yet shown itself. His best and most productive trees are White Doyenne (Virgalien); second, Vicar of Winkfield. Then comes several: Louise Bonne de Jersey, Bartlett, Seckel, and Steven's Genesee. For a standard, Bartlett is best, though it is sometimes injured by a severe winter. Flemish Beauty does very well.

Some of his apple trees have the blight, also. Most of his trees that bore to excess last year are not bearing this. Northern Spy is tolerably full this season.

He advises farmers in the West to plant an acre of orchard, and half an acre in strawberries, currants and grapes. No more danger of failure than there is in raising corn and wheat. He says:

"Set your trees about twenty-five feet apart; plant two rows of maple and cotton wood, thick together, on the north and west, for wind-breakers. Plant your orchard with corn or potatoes for at least six years, and no sowed crops; turn the furrows toward the trees every time, and get a good ridge about the roots, and let the water run off freely in winter. If your land is dry and rolling, and thin soil, you will have a good orchard, if you take as good care of it as a good farmer does of his field crops."

CHARCOAL FOR GRAPE VINES.

BULWER is writing a series of essays on "Life, Literature and Manners" for *Blackwood's Magazine*, and in illustrating some remarks on mental culture, tells the following admirable story:

A certain nobleman, very proud of the extent and beauty of his pleasure-grounds, chancing one day to call on a small squire, whose garden might cover about half an acre, was greatly struck with the brilliant colors of his neighbor's flowers. "Ay, my Lord; the flowers are well enough," said the squire, "but permit me to show you my grapes." Conducted into an old-fashioned little green-house, which served as a vinery, my Lord gazed, with mortification and envy, on grapes twice as fine as his own. "My dear friend," said my Lord, "you have a jewel of a gardener; let me see him!" The gardener was called—the single gardener—a simple-looking young man under thirty. "Accept my compliments on your flower-beds and your grapes," said my Lord, "and tell me, if you can, why your flowers are so much brighter than mine, and your grapes so much finer. You must have studied horticulture profoundly." "Please your Lordship," said the man, "I have not had the advantage of much education; I ben't no scholar; but as to the flowers and the vines, the secret as to treating them just came to me, you see, by chance."

"By chance? explain."

"Well, my Lord, three years ago, master sent me to Lunnion on business of his'n; and it came on to rain, and I took shelter in a mews, you see."

"Yes; you took shelter in a mews; what then?"

"And there were two gentlemen taking shelter too; and they were talking to each other about charcoal."

"About charcoal?—go on."

"And one said that it had done a deal o' good in many cases of sickness, and specially in the first stage of cholera, and I took a note on my mind of that, because we'd had the cholera in our village the year afore. And I guessed the two gentlemen were doctors, and knew what they were talking about."

"I dare say they did; but flowers and vines do not have the cholera, do they?"

"No, my Lord; but they have complaints of their own; and one of the gentlemen went on to say that charcoal had a special good effect upon all vegetable life, and told a story of a vine-dresser, in Germany, I think, who had made a very sickly poor vineyard one of the best in these parts, simply by charcoal-dressings. So I naturally pricked up my ears at that, for our vines were in so bad

a way that master thought of doing away with them altogether. 'Ay,' said the other gentleman, 'and see how a little sprinkling of charcoal will brighten up a flower-bed.'

"The rain was now over, and the gentlemen left the mews; and I thought, 'Well, but before I try the charcoal upon my plants, I'd best make some inquiry of them as aren't doctors, but gardeners;' so I went to our nurseryman, who has a deal of book-learning, and I asked him if he'd ever heard of charcoal-dressing being good for vines, and he said he'd read in a book that it was so, but he had never tried it. He kindly lent me the book, which was translated from some foreign one. And, after I had picked out of it all I could, I tried the charcoal in the way the book told me to try it; and that's how the grapes and the flower-beds come to please you, my Lord. It was a lucky chance that I ever heard those gentlemen talking in the mews, please your Lordship."

"Chance happens to all," answered the peer, sententiously; "but to turn chance to account is the gift of few."

His Lordship, returning home, gazed gloomily on the hues of his vast parterres; he visited his vine-ries, and scowled at the clusters; he summoned his head gardener—a gentleman of the highest repute for science, and who never spoke of a cowslip except by its name in Latin. To this learned personage my Lord communicated what he had heard and seen of the benignant effects of charcoal, and produced in proof a magnificent bunch of grapes, which he had brought from the squire's.

"My Lord," said the gardener, scarcely glancing at the grapes, "Squire ——'s gardener must be a poor ignorant creature to fancy he had discovered a secret in what is so very well known to every professed horticulturist. Prof. Liebig, my Lord, has treated of the good effect of charcoal-dressing, to vines especially; and it is to be explained on these chemical principles"—therewith the wise man entered into a profound disputation, of which his Lordship did not understand a word.

"Well, then," said the peer, cutting short the harangue, "since you know so well that charcoal-dressing is good for vines and flowers, have you ever tried it on mine?"

"I can't say I have, my Lord; it did not chance to come into my head."

"Nay," replied the peer, "chance put it into your head, but thought never took it out of your head."

My Lord, who, if he did not know much about horticulture, was a good judge of mankind, dismissed the man of learning; and, with many apologies for seeking to rob his neighbor of such a treasure, asked the squire to transfer to his service the man of genius. The squire, who thought that now the charcoal had been once discovered, any new gardener could apply it as well as the old one, was too happy to oblige my Lord, and advance the fortunes of an honest fellow born in his village. His Lordship knew very well that a man who makes good use of his ideas received through chance, will make a still better use of ideas received through study. He took some kind, but not altogether unselfish, pains with the training and education of a man of genius whom he had gained to his service. The man is now my Lord's

head forester and bailiff. The woods thrive under him, the farm pays largely. He and my Lord are both the richer for the connection between them. He is not the less practically pains-taking, though he no longer says "ben't" and "his'n;" nor the less felicitously theoretical, though he no longer ascribes a successful experiment to chance.

BURYING GRAPES IN THE GROUND.

SOME time since we alluded to a statement made in the *Germantown Telegraph*, of a gentleman, who, on the 28th of last March, was presented with some bunches of Isabella and Catawba grapes that were as full and plump as if just taken from the vines. The gentleman referred to was SAMUEL MILLER, the well-known grape man of Lebanon, Penn. The following is his account of the manner in which they were preserved:

"In the fall when the grapes are perfectly ripe, they are taken from the vines, when they are free from anything like moisture, handled carefully and packed in small kegs—nail kegs were the kind used in this instance. Put a layer of green leaves, right off the vines, in the bottom, on this a layer of grapes, then leaves again, and grapes, alternately, until the keg is full, then finish off with leaves. Put in the head, and your cask is ready for—what? Why, *to be buried in the ground!* Dig a trench so as to admit the casks deep enough that they will have about one foot or fifteen inches of soil over them when covered. The ground should be packed moderately tight, and a board laid along on the top before the ground is thrown in. Then throw some litter on the surface of the ground over those which you wish to take up during the winter, to prevent the ground from freezing so hard as to keep you from getting at them. One important thing must be observed, that they be placed where there can be no standing water about the casks, or they will suffer."

It is thought that other fruit may be kept in the same way.

TRANSPLANTING BEARING GRAPE VINES IN SUMMER.—The *Boston Cultivator* says that Mr. E. S. RAND, Jr., of Dedham, while making, last month, some improvements on his grounds, found it necessary to remove a fine Delaware grape vine which had on it several bunches of fruit. It had stood there two years, and was three years old when set. Mr. R. resolved to save, if practicable, both the vine and the fruit. The vine was trimmed so as to bring it within manageable dimensions, and an excavation was made in such a way as to leave a ball of earth a foot and a half in diameter inclosing the principal roots. The vine was then transferred to its destined place, where it has not ceased for a moment to grow. Even the fruit has pushed regularly along, and bids fair to be as perfect as if the vine had not been touched.

HOW TO KEEP A GARDEN CLEAN.

THE *Country Gentleman* has an excellent article on this subject. Though rather late for this season, we copy it entire. It deserves the attention of every gardener:

Farmers who raise kitchen vegetables, and who do not keep a regular gardener, are apt to neglect their grounds toward the end of summer and early in autumn, and allow weeds to ripen their seeds. Nothing reduces the current expenses of the family, or the outlay, more than a good kitchen garden, but the complaint with many is the labor of keeping it clean—the constant fight with weeds, weeds. Some have adopted the opinion that a quarter-acre garden will grow more weeds than ten acres of arm land, and there is ground for the belief, as some are managed. A few weeds, allowed to perfect seeds, will produce an abundant crop next year; and thus, year after year, the earth becomes filled with them, till the soil of a garden consists of three main ingredients, namely, a soil, naturally; a large amount of manure, artificially; and a immense supply of foul seeds, spontaneously.

Is it not practicable to clear out entirely and totally, the last of the three? Are weeds a necessity? If a garden contains a hundred thousand of them, and ninety-nine thousand are killed by the hoe, why not the remaining thousand? If nine hundred and ninety of this thousand, why not the remaining ten? *The soil of a garden may be completely purified of weeds and their seeds*, greatly reducing the labor of keeping it in order, and largely contributing to a fine growth of the crops. It is easier to keep a garden perfectly clean, than to be engaged in a constant warfare with the weeds. The labor is far less. The reason that it is not done, is the want of care and attention. Nearly all farmers are satisfied if a garden is NEARLY clean. This is the origin of all the trouble—namely, leaving a few weeds to seed the whole ground. The remedy is, begin now—eradicate everything—and then, in three days go over again, and eradicate anything that may have shown its head, and so continue the examination every week, weeds or no weeds. One morning every week should be set apart for this special purpose. Unless something of this kind is adopted, the thing will certainly be neglected. And after they are out, continue the process to keep them out. It is easier to spend a half hour in a morning once a week in this way, and have good crops, than to spend three days in each week fighting the intruders, and as a consequence getting bad crops.

A muskrat made a hole in a dam embankment, and the water was washing it larger. The owner applied to one skilled in such things, to close the dangerous orifice. He would charge a dollar, which was more than the owner would give. The next day it had increased, and then the offer was accepted. But the price had increased to two dollars, and was again declined. From this time the breach increased enormously, and the next day the owner had to give the fifty dollars required, or lose his whole dam. It is so in destroying weeds. A little labor at the start would save an immense increase. When a building is in flames, it will not do to suppress merely nine-tenths of the flames, but

the last spark must be extinguished. Let every owner of a garden be sure that the last weed is killed, if there is such a one, as often as once a week.

POTATO TOPS, &c.—Everything in the shape of rubbish, such as early potato tops, cucumber vines, refuse radishes, spring mulching, &c., should be buried on the spot, leaving a clean and neat surface. When an assistant digs a mess of potatoes, cause him to bury the tops at the time. They will decay and enrich the land.

HORTICULTURAL ITEMS FROM FOREIGN JOURNALS.

Lilium auratum is a Japanese lily which is exciting a good deal of admiration in horticultural circles in England.

A CORRESPONDENT of the London *Florist* recommends an early stock for Isabella Gray and Cloth of Gold roses. He says that they are early bloomers and require an early stock. Working them on a stock of this character, he regards as the remedy for the difficulty experienced by many persons in blooming them.

THE *Gardener's Chronicle* says the present seems to be a great year for parasitic Fungi. Pear trees and apple trees are suffering to a great extent from a minute brown mould. We have never seen it so abundant, and unfortunately we know of no remedy. In some cases the young shoots are dwarfed by this parasite and appear unlikely to form healthy fruit buds for next year.

Onions, also, are attacked by a minute mould which utterly defies the cultivator.

At the Royal Horticultural National Rose Show the rose which attracted the most attention, according to Mr. BEATON, of the *Cottage Gardener*, was a Suffolk seedling called "John Hopper." He adds that it is a most splendid rose, with a strong, free habit, and a most profuse habit of blooming. The color is a rich crimson on the face of the petal, and a violet tinge at the back. It is a cross between Madame Vidot and Jules Margottin.

ACCORDING to *Galignani*, the French Society of Acclimation has received intimation from Mr. G. TIMON, now in China, of a new kind of silk-worm, which the people call Tien-tye, or Children of Heaven, as they suddenly appear in myriads upon the mulberry trees about two months after the ordinary silk-worm has performed its evolutions. They live about three weeks, and at the end of that time they congregate under the leaves and spin their cocoons, an operation which takes them three days. These worms require scarcely any care—only protection from the birds.

IN a review of a book on the Vine, the *Gardener's Chronicle* says that vineries can be erected so cheaply that out-door culture has ceased to be a subject of any importance.

IN a report of the British Entomological Society it is mentioned incidentally that three years ago multitudes of the oak-gall apple were found around London, but that the tom-tits found out that the galls contained a delicious morsel and have attacked them so successfully that this year not one is to be found.

IN the "Answers to Correspondents" in the *Journal of Horticulture*, a gardener, who has been through a series of trials in the failure of crops, &c., is advised to go and see LESSING's "Martyrdom of John Huss," which is now in London, but which many of our readers will remember to have seen at the Dusseldorf Gallery in New York.

SIR JOSEPH PAXTON keeps all his Geraniums which he uses for bedding out at Sydenham in the same pots year after year. The pots are planted with them, housed with them, wintered and set out with them; and in this way they are in bloom a month in advance of the London season. D. BEATON, the editor of the *Journal of Horticulture and Cottage Gardener*, thinks that this system will soon be universally adopted.

IN a notice of the Ailanthus silk-worm, the *Gardener's Chronicle* says considerable attention has lately been directed to the breeding of this worm, or Ailanticulture, as it is now called, both in this country and in France. It is a subject well worthy of attention, for if the worm is as hardy and the product as useful as the statements made concerning them seem to indicate, this branch of industry may do something to fill up the fearful void caused by a deficient supply of cotton.

MR. CUTHILL, of Camberwell, has been remarkably successful in the cultivation of asparagus. His plan is given in the *Gardener's Chronicle*. The plants were set out one foot apart in the rows, and the latter were made four feet asunder, with a row of seakale in the center. When planted, the ground was merely trenched, manure being dug in afterward. Every year the rows have had good soakings of manure water in the spring and also when dry in the summer. Plenty of salt has also been put on in March, and the soil drawn up with a hoe, so as to cover the asparagus to the depth of about four inches. The roots being so near the surface, they get well ripened, and are therefore better able to bear the changes of weather.

WM. THOMSON, the well-known gardener at Dalkeith, Scotland, has written "A Practical Treatise on the Cultivation of the Grape Vine." It is published by the BLACKWOODS.

THE *Scottish Farmer* says that the best cure for slugs and snails in a garden is a pair of Spangled Hamberghs, as they neither scrape nor burrow, and, in addition, are very beautiful. A brood of ducklings will answer the same purpose.

A CORRESPONDENT of the *Gardeners' Chronicle*, who has lately returned from the East, says that he measured eight of the oldest Cedars of Lebanon, the smallest of which was twenty-one feet in girth, and the largest forty feet. He thinks that the Cedar and the Deodar are the same tree.

THE *Gardeners' Chronicle* states that *Attacus Ricine*, the Eria silkworm, is reared over a great part of Hindoostan, and furnishes four or five crops in the year. The produce of this worm, which feeds on the castor-oil plant, gives a cloth of seemingly loose texture but of incredible durability—the life of one person, it is stated, being seldom sufficient to wear out a garment made of it.

DR. LINDLEY, the distinguished editor of the *Gardeners' Chronicle*, in a review of a work on the "Culture of Cotton," by Dr. WRIGHT, says: "No man acquainted with the progress of agriculture, or the possible results of scientific cultivation, has ever doubted that as fine cotton as that called Sea Island may be grown in any climate warm enough and damp enough to suit its constitution. The most ill-informed observer who now visits the International Exhibition, must be convinced of this fact. The cotton of Queensland and New South Wales, both new cotton countries, is unsurpassable.

DEATH OF A HORTICULTURIST.—The *Gardeners' Monthly* notices the death of B. A. FAHNESTOCK, one of the Vice Presidents of the Pennsylvania Horticultural Society. It says: "His collection of rare plants was probably the most valuable in the Union, and his liberality in allowing the friends of horticulture to see his collections, frequently afforded us opportunities of seeing extremely rare and valuable plants we should otherwise know only by reputation as existing in the princely gardens of Europe."

THE CLARKE RASPBERRY.—The *Horticulturist* speaks highly of a new seedling raspberry originated by Mr. CLARKE, of New Haven, Ct. It is a strong grower and bears abundantly. The berry is large, red, sweet and high-flavored.

SPIRIT OF THE AGRICULTURAL PRESS.

INCREASING PRICE OF STOCK.—The *American Stock Journal* says the demand for horses for army and other purposes is such that the prices paid for them are from twenty-five to thirty-three per cent. higher than the same quality of horses sold for one year ago, and yet they are rising and will continue to rise so long as the supply is inadequate to the demand. Farmers who give their attention to the raising of good horses, will find it a remunerative business for the next few years. Cattle for beef, work and milk, though not materially higher than one year ago, must advance considerably in price in the year to come, or we much mistake the signs of the times. Those who have large stocks, or who have the means to produce them, will do well to double their efforts, with a certainty of realizing large profits. Wool, and especially the coarser grades, has not been so high for many years as now, and it is still rising. We have heard the opinion expressed by intelligent gentlemen, in whose judgment in such matters we place much confidence, that should continue as high as now, wool in fair lots will bring from eighty cents to one dollar per pound within the coming year.

In these facts the farmer will not fail to see much to encourage him to greater exertion to put into the market the greatest possible amount of the products of his farm, of whatever kind, and wisdom would dictate to many who are engaged in other pursuits, the propriety of giving their best energies to the proper cultivation of the earth, with every assurance of a bountiful return.

OVER-FATTENED SHOW CATTLE.—The *American Stock Journal* says: In our observations of the cattle at several exhibitions in England, we were very much surprised to observe that nearly every animal exhibited for premium was so overloaded with fat as to be almost shapeless. And this was not confined to animals shown as fat cattle, but milch cows, young stock, and even breeders, all were in this gross condition. One gentleman took us to a distant pen, in the class of breeding cows, to point out to us what he said was "the best cow in England." Of course we pictured to ourselves a finely developed milky mother, devoting all her faculties to the peculiarly feminine business of rearing and feeding her young. Instead of such a picture, in which we should have pardoned somewhat of thinness, as a necessary result of what our farmers call "running all to milk," we beheld an animal with fine head and limbs, to be sure, but loaded with fat, and with about as much appearance of milkiness as a two year old steer. "Does she give a large quantity of milk?" we innocently inquired. "Why no," was the reply, "she has not given milk for nearly a year." Of course, as she had given no milk, she had had no calf for a long time, but the exhibitor seemed perfectly satisfied as he expatiated on her fine points, indicating the highest blood, that she might be the best cow in England, without discharging any of the duties of lactation or maternity which are generally esteemed among farmers and other practical men, as the true tests of value.

TOPPING CORN, OR CUTTING IT BY THE GROUND.—The *Country Gentleman* says: "By topping corn before it is ripe, you prevent the corn from receiving that portion of

the elaborated nutritive sap which it would have received from the stalks and leaves cut off, had they not been separated from the corn. On the other hand, by cutting corn by the ground before the leaves and stalks become dry, and the corn fully ripe, and setting it in shocks as soon as cut, the circulation of the sap continues, until the stalks become dry, and the corn improves in the shock. The same thing is observed in wheat, by cutting it before the kernel is hard, and placing it in shocks before it wilts; the wheat improves in the shock, and will make more flour, and of a better quality, than if it was allowed to stand until the kernel was hard.

We have two objects in view when we cut corn by the ground. Namely, the preservation of the corn and stalks from frost, which frequently occurs before the corn is ripe, and spoils corn and stalks. Whereas, if corn is cut by the ground before the frost strikes it, both may be saved and be of good quality."

FACTS ABOUT APPLE TREES.—The *Farmington (Me.) Chronicle* says: The most important of all fruits that can be produced in temperate climates, if not the most important fruit which the Creator has bestowed upon man, is the apple. Were people generally in possession of information which would enable them to form conclusions in relation to the value of a single apple tree, no one who has a spot of terra firma large enough for a house lot, would neglect to plant one.

HAYWARD speaks of an apple tree in Duxbury, Mass., which was upwards of 100 years old, was 16 feet in circumference eight inches above the ground, and which produced in one year fruit from which 10 barrels of cider were made, besides 30 bushels of apples for the cellar.

An apple tree in Natick, Mass., was grafted to the Porter apple when 75 years old, and the 7th year from grafting produced 15 barrels, which sold for 30 dollars.

The original Hurlbut apple tree produced 40 bushels in one year, and 20 the next.

The original Bars apple tree produced 60 bushels in one year.

In Orange, N. J., a Harrison apple tree produced 100 bushels in one year.

An apple tree in Farmington, Me., produced 16 bushels the 16th year from the planting of the seed.

COLE says he has had fruit from an apple tree in Plymouth, Mass., when the tree was 200 years old.

An apple tree brought from England and planted near Hartford, Ct., produced fruit when 209 years old.

Several apple trees in the United States have trunks 12 feet in circumference.

LOSS OF WEIGHT IN SALTING PORK.—A correspondent of the *Germantown Telegraph* says he finds it more profitable to sell pork at the usual killing time than to salt it, as it loses so much in weight. Last fall he killed two hogs which weighed 659 lbs.; after drying and salting in the usual manner, they only weighed 411 lbs. That is to say, 100 lbs. of fresh meat only gave 62 lbs. of cured pork, or a loss of 88 per cent.

The same writer states that "one shoulder weighed before salting 64 lbs., after drying but 57 lbs." This is a loss of 11 per cent. We suppose in the former case the weight of the lard, &c., was not taken into the account.

Miscellaneous.

A SAILOR'S STORY OF A PIG.—A curious animal is a pig gentlemen! Very cunning, too—a great deal more sensible than people give him credit for.

I had a pig aboard my ship that was too knowing by half. All hands were fond of him, and there was not one on board that would have seen him injured. There was a dog on board, too, and the pig and he were capital friends; they ate out of the same plate, walked about the decks together, and would lie down side by side under the bulwarks in the sun.

The only thing they ever quarreled about was lodging. The dog, you see, sir, had got a kennel for himself; the pig had nothing of the sort. We did not think he needed one; but he had his own notions upon that matter. Why should Toby be better housed of a night than he? Well, sir, he had somehow got it into his head that possession is nine parts of the law; and though Toby tried to show him the rights of the question, he was so pigheaded that he either would not or could not understand. So every night it came to be "catch as catch can." If the dog got in first, he would show his teeth, and the other had to lie under the boat, or to find the softest plank where he could; if the pig was found to be in possession, the dog could not turn him out, but looked out for his revenge next time.

One evening, gentlemen, it had been blowing hard all day, and I had just ordered close-reefed topsails, for the gale was increasing, and there was a good deal of sea running, and it was coming on to be wet; in short, I said to myself, as I called down the companion-ladder for the boy to bring up my penjacket, "We are going to have a dirty night." The pig was slipping and tumbling about the decks, for the ship lay over so much with the breeze being close-hauled, that he could not keep his hoofs. At last, he thought he would go and secure his berth for the night, though it wanted a good bit to dusk. But, lo and behold! Toby had been of the same mind, and there he was safely housed. "Umph, umph!" says piggy, as he turned and looked up at the black sky to windward; but Toby did not offer to move. At last, the pig seemed to give it up, and took a turn or two, as if he was making up his mind which was the warmest corner. Presently he trudges off to the lee scuppers, where the tin plate was lying that they ate their cold 'tatoes off. Pig takes up the plate in his mouth, and carries it to a part of the deck where the dog could see it, but some way from the kennel; then, turning his tail towards the dog, he begins to act as if he was eating out of the plate, making it rattle, and munching with his mouth pretty loud. "What!" thinks Toby, "has piggy got victuals there?" and he pricked up his ears and looked out towards the place, making a little whining. "Champ, champ!" goes the pig, taking not the least notice of the dog; and down goes his mouth to the plate again. Toby couldn't stand that any longer; victuals and he not there! Out he runs, and comes up in front of the pig, with his mouth watering, and pushes his cold nose into the empty plate. Like a shot, gentlemen, the pig turned tail, and was snug in the

kennel before Toby well knew whether there was an meat or not in the plate.—*Animal Traits and Characteristics, by the Rev. J. G. Wood.*

PIETY AND PROFITS.—A gentleman who employs a great number of hands in a manufactory, in the west of England, in order to encourage his people in a due attendance at church on a late fast day, told them that if the went to church they should receive their wages as though they had been at work. Upon which a deputation was appointed to tell their employer that if he would pay them for over hours, they would likewise attend the Methodist Chapel in the evening!

TAKING HIM DOWN.—BULWER tells a good story of a young lord who went to Eton, and who was asked his name by the cock of the school, a big brave fellow, the son of a retired wine merchant. "I am Lord Dash," said the boy, vainly, "the son of the Marquess of Blank." "Then," said the other, taking him quietly one side, and giving him a practical lesson, "there are three kicks—one for my lord, and two for the marquess."

A FARMER'S OPINION.—A certain lawyer had his portrait taken in his favorite attitude—standing with his hand in his pocket. His friends and clients went to see it, and everybody exclaimed, "Oh, how like! it's the very picture of him!" An old farmer, however, dissented ("Don't you see," said he, "he has got his hand in his own pocket? 'Twould be as like again if he had it in somebody else's.")

A SCOTCH PULPIT JOKE.—The pulpit of a church in Scotland being vacant, two candidates offered to preach whose names were Adam and Low. The latter preached in the morning, and took for his text, "Adam, where art thou?" He made an excellent discourse. In the afternoon, Mr. Adam preached upon the words, "Lo, here am I!" The impromptu gained the appointment.

BOARDER: "What large chickens these are!" **Landlady:** "Yes, chickens are larger now-a-days than they used to be; ten years ago they were nothing like so large." **Boarder** (innocently): "No, I suppose not; they must have grown some in that time." (Landlady looks as though she thought she had been misunderstood.)

NOTHING teaches patience like a garden. You may go round and watch the opening bud from day to day; but it takes its own time, and you cannot urge it on faster than it will. If forced, it is only torn to pieces. All the best results of a garden, like those of life, are slowly but regularly progressive.

At Constantinople the Sultan recently presented the Prince of Wales with a magnificent *narghileh*, which he (the Prince) had smoked. It is gorgeously chased and thickly diamond-studded—its estimated value being nearly £3,000.

It was said of the first Lord Lyttleton, the absent-minded, when once he fell into the river, that he sunk twice before he could recollect that he knew how to swim.

Ladies' Department.

ORIGINAL DOMESTIC RECEIPTS.

Contributed to the Genesee Farmer.

TURTLE BEAN SOUP WITHOUT MEAT.—Take any quantity that you wish of black beans; boil them in water until thoroughly cooked; then dip the beans out of the pot and press them through a colander; return the flour of the beans thus pressed into the pot in which they were boiled; tie up in a cloth some thyme; put it into the soup and let it boil; add a little butter, and season with salt, pepper, parsley and sweet marjoram; make some force meat-balls; add them to the soup, together with a sliced lemon, and wine to your taste a short time before serving. This will approach so near in flavor to the real turtle soup that few would be able to distinguish the difference. The beans must be soaked over night. J. O.

TURTLE BEAN SOUP WITH MEAT.—One pint of beans soaked over night in cold water; one gallon of water; half a pound of pork; the same of beef; one or two onions; a carrot grated fine, and all strained through a colander before serving. Add lemon and a hard-boiled egg, sliced, placed in the tureen and the soup poured over them. If it boils too thick, add a little more water.

J. D. J.

APPLE MERINGUE.—This is a simple dish, but very attractive looking, and very pleasant to eat. Take some stewed apple which has been carefully prepared and is entirely free from lumps. It must be strained through a strainer, if necessary. Put it into a pudding-dish; beat up the whites of two eggs with not quite as much sugar as you use for frosting; heap this upon the apple; let it stand in a cool oven long enough to become slightly brown. The apple may be flavored with lemon, wine or cinnamon. Any other fruit may be used. This kind of frosting is often put on lemon and other pies which have no upper crust.

CHOCOLATE DROPS, OR CARAMELS.—One cup of milk, two cups of molasses, one cup of sugar, one and a half ounces of chocolate, and butter the size of a hen's egg. Melt the chocolate, and stir it into the milk when boiling; then stir in gradually the other ingredients. Try as you would molasses candy, and when properly boiled spread it out in pans to cool, cutting it up in pieces about half an inch square. This is considered a very delicious kind of French confectionary.

ELDERBERRY CATSUP.—On every pint of ripe elderberries stripped from the stalks, pour a pint of boiling vinegar and let it stand in a cool oven all night. Strain without pressing, and boil the liquor five minutes with half a teaspoonful of salt. To every quart put half a pound of anchoreis, half an ounce of mace, half an ounce of white pepper, half an ounce of ginger, twelve cloves, and two onions or garlics. Bottle when cold with the spices.

SOFT RUSK.—One tea-cup butter, two tea-cups milk, two tea-cups sugar, two eggs and saleratus; add flour enough to make it about as thick as loaf cake.

SODA BISCUIT.—A receipt that never fails for this easily made but often spoiled bread is very desirable, and many think the following one meets this want: One quart of flour, one teaspoon of cream-tartar, a small spoonful of soda, half a tablespoon of butter. Rub these ingredients, except the soda, into dry flour, and mix with milk as soft as you can put it into pans. The soda should be dissolved in the milk.

SOFT GINGERBREAD.—Two cups of molasses, one cup of sugar, one of butter, one of sour milk, and five of flour; three eggs, one teaspoon of saleratus, and a tablespoon of ginger. All the materials should be warmed before being mixed.

FASHIONS FOR OCTOBER.—There is but little change, even in bonnets, which are the most variable of all articles of ladies' dress. They are still very high on the top and narrow at the sides. The trimming is worn on the top and quite in front, or on one side of the crown. A ribbon put straight down near the front, and then forming the strings, is very much worn. A black ribbon put on in this way, just back of a bunch of gay flowers, which should be directly on the front of the bonnet, has a very good effect.

Black alpacas skirts, stitched with colored silk in a pattern, or trimmed with braid, are very stylish, and have quite taken the place of the balmoral. They are not at all equal for winter use to the heavier skirt which they have superseded, but with a lining of flannel or a little wadding they can easily be made sufficiently warm.

Braiding, or *soutache*, is very much worn on everything, even on silk dresses. Cloaks and mantillas are trimmed in this way, and not made up plain as formerly.

Sacques, moderately long for winter and short for fall, are still the prevailing style. Mantillas made in the form of a shawl-bias in the back, and trimmed with a ruffle of the same or with gimpure lace, are very elegant; but cloth made in this way is rather stiff, and unless very handsomely trimmed, does not look as well as a sacque. Black cashmere shawls, embroidered with silk and trimmed with lace, are very stylish.

Linen collars are exceedingly small; indeed, a variation of three extra threads from the established size bears so large a proportion to the whole collar, that it is noticeable. Several cords are stitched on the edge with black or colored thread.

Sleeves are worn much closer than formerly, and dresses are not made so exclusively with round waists and belts; but silks and very heavy materials are made with waists pointed both on the back and front. "Garibaldi's" are still in favor, and are very convenient, as they can be made of flannel and worn with skirts of a lighter material.

The tendency of fashion seems, at present, to be toward the sensible and convenient, in dress, and anything that a lady wears, which is not showy nor unsuitable to her age or occupation, will not look so old-fashioned as to be odd.

We take some pains to give our lady readers a few words about fashions, now and then, not to encourage extravagance in dress, but to aid those who live too much alone to have many opportunities to gather ideas from others, and are too much occupied to spend much time upon settling such questions for themselves.

Young People's Page.

WATCHING FOR PA.

Three little forms in the twi light gray,
Scanning the shadows across the way;
Six little eyes, four black and two blue,
Brimful of love and happiness too,
Watching for pa.

May with her placid and thoughtful brow,
Gentle face beaming with smiles just now;
Willie, the rogne, so loving and gay,
Stealing sly kisses from sister May,
Watching for pa.

Nellie, with ringlets of sunny hue,
Cosily nestled between the two,
Pressing her cheek to the window-pane,
Wishing the absent one home again—
Watching for pa.

O how they gaze at the passers-by!
"He's coming at last," they gaily cry;
"Try again, my pets!" exclaims mamma,
And Nellie adds: "There's the twilight star
Watching for pa."

Jack nods and smiles, as with busy feet
He lights the lamps of their quiet street;
That sweet little group he knows full well—
May, and Willie, and golden-haired Nell—
Watching for pa.

Soon joyous shouts from the window-seat,
And eager patter of childish feet;
Gay musical chimes ring through the hall;
A manly voice responds to the call—
"Welcome, papa."

How FAR CAN CROWS COUNT?—A correspondent of the *Plattsburg Republican*, in discussing this question, narrates the following incident which goes far to answer it: A few years since we were riding in a stage-coach with several gentlemen, when the conversation turned on the subject of crows, and many interesting anecdotes were related. One gentleman said he knew that crows could count, at least as far as three, for he had often proved it. Being troubled with crows in his field, he had often attempted to shoot them; but they knew what a gun was as well as he did, and therefore kept out of his reach. He then concluded to put up a small booth in the field, and place some carrion (a dead horse) within gunshot. From this place he supposed he could fire at them when they alighted to eat. Whenever he entered the booth the crows all sit on the distant trees, and not one would come near until he was gone; then all would alight except the sentinel, who remained to give warning if danger approached. The gentleman, finding that plan to fail, thought he would deceive them; so he took his son with him to the booth, concluding that, when they had seen one go away, the crows would think the coast was clear and descend to the bait. But when the son left the booth, a crow sung out, "Caw, caw, caw," (there goes one,) but not a crow would leave his place. The next day the gentleman took two persons with him to the booth, and then let them depart one at a time. The crows on the trees saw the first, and cried out, "There goes one," in their own peculiar dialect. Then when the other went, they cried, "There goes two;" but they would not alight, for they counted three when they entered. The day following, the gentleman took three others with him. When they went out one by one, the

crows cried, "There goes one;" "There goes two;" "There goes three." And when these men were out of sight they all alighted, and the gun of the fourth man did its work. The gentleman stated that this had been tried repeatedly, and it was evident that the crows could count as far as three, but there their arithmetic ended. When they will ascend to the higher branches of mathematics is yet to be ascertained. In the meantime, others can bring on their incidents of crow-nology.

SELF-CONTROL.—A merchant in London had a dispute with a Quaker respecting the settlement of an account. The merchant was determined to bring the account into court—a proceeding which the Quaker earnestly deprecated, using every argument in his power to convince the merchant of his error; but the latter was inflexible. Desirous to make a last effort, the Quaker called at the house one morning and inquired of the servant if his master was at home. The merchant, hearing the inquiry, and knowing the voice, called out, from the top of the stairs: "Tell that rascal I am not at home." The Quaker, looking up at him, calmly said: "Well, friend, God put thee in a better mind." The merchant, struck afterwards with the meekness of the reply, and having more deliberately investigated the matter, became convinced that the Quaker was right and that he was wrong. He requested to see him, and, after acknowledging his error, he said: "I have one question to ask you: How were you able, with such patience, on various occasions, to bear my abuse?" "Friend," replied the Quaker, "I will tell thee. I was naturally as hot and violent as thou art. I knew that to indulge this temper was sinful, and I found that it was imprudent. I observed that men in a passion always spoke aloud; and that if I could control my voice I should repress my passion. I have, therefore, made it a rule never to let my voice rise above a certain key; and, by the careful observation of this rule, I have, by the blessing of God, entirely mastered my natural temper." The Quaker reasoned philosophically, and the merchant, as every one else may do, benefited by his example.

THE DRY STREAM.—"JOHN," said ISAAC, to his brother, "do you know that the brook in the sheep pasture has dried up?"

"No; I do not know any such thing."

"It is dry."

"I saw it running not an hour ago."

"It was dry this morning. I was going to cross over on the fence, but there was no water in the bed of the stream above or below the fence. I heard father say the brook never failed."

"I know it has not failed."

"That comes pretty near saying you don't believe what I say."

The brothers went on disputing till they got very angry. At first, one was sure the other was mistaken. When they became angry, one was sure the other had asserted an untruth.

Now, the fact was, that both had spoken the truth. When the stream was low, there was a gravel bank by the fence mentioned by ISAAC, through which the water percolated without appearing on the surface. JOHN had seen the water flowing as usual in its channel some twenty rods below the fence.

Men often dispute about things in regard to which they really do not differ. They look at the subject from different points of view. Before you decide that a man is wrong because he differs from you, see from what point he views the matter.—*Sunday School Times.*

News Items.

Six hundred cavalry horses are wanted for the army in this city.

Field works are being constructed in the vicinity of Newport and Covington, Ky.

At Martinsburg there was a slight skirmish, in which the Federals were successful.

On Monday, Sept. 1st, POPE's army commenced retiring toward Fairfax Court House.

LEXINGTON, Ky., has been abandoned by the Union forces, and occupied by 6,000 rebels under KIRBY SMITH.

BATON ROUGE was said to have been destroyed by our forces, has been evacuated, but, it is now said, left uninjured.

The clerks of the Departments at Washington have gone out to purchase. They volunteered with the utmost enthusiasm.

The recent Union victories in Maryland have reduced the premium on gold to 3 to 6 per cent. It is now (September 15) 6.

It is thought that our loss in the first battles of the second Bull Run series has been exaggerated—that it does not exceed five thousand.

THERE was a fight at Bolivar, Tenn., on Aug. 25th. Col. WARD attacked 3,000 rebels and completely routed them. Our loss was one killed.

The attack of the Indians upon Fort Ridgely, and the massacre of the people in the surrounding villages, revives the horrors of the old wars.

The rebels are again threatening Cincinnati. They drove in our pickets, September 16, two and a half miles this side of Florence, Ky.

GEN. BUTLER has issued an order admitting the free colored militia of Louisiana, who choose to volunteer, on the same footing with the whites.

ALL applications of persons desiring to act as nurses to the wounded, should be made to Mr. H. M. PIERCE, at the Surgeon-General's office.

CONFIDENCE is being restored in Minnesota, as so many troops have been sent out. It is anticipated that the Indians will be entirely subdued.

The gunboat Ottawa captured an English steamer off Charleston. She was loaded with saltpetre, ammunition and arms, and valued at \$250,000.

The fight at Richmond, Ky., was a most gallant one on our side. The rebels had about fifteen thousand men. Gen. NELSON was slightly wounded.

A CORRESPONDENT of the *World* says that a General told him that the only reason our troops fell back was that they were out of ammunition and food.

GEN. POPE has resigned his command, and it is said that he intends to make charges against Gens. SUMNER and FITZ JOHN PORTER, and other officers.

Our losses in the late fights have been large in officers. Gen. KEARNEY, one of the ablest in the field, was killed it is supposed by the wind of a cannon ball.

HOLE-IN-THE-DAY, the great Chippewa chief, is said to be in command of the Indians in Minnesota. He is supposed to be under the influence of the secessionists.

AUGUST 25th an attack on Fort Donelson was made by the rebels under Col. WOODWARD, the same who took Clarksville, but they were repulsed with some loss.

HON. J. B. CLEVELAND writes that in the village of New Ulm, which was destroyed by the Indians, he saw eight men lying together with their throats cut from ear to ear.

It is asserted, on secession authority, that the rebel General BRAGG's forces have gone to Western Virginia and will soon make their appearance on the Kanawha river.

HARPER'S FERRY and 6,000 or 8,000 of our troops were given up to an overwhelming force of rebels September 15. With this exception the news is of the most cheering character.

WHEN Centerville was again evacuated by our troops, the retreat was so like Bull Run that only the fixed bayonets of the men within the entrenchments saved us from another panic.

SHOES are at a premium in rebeldom. A lady writing from there says that her children are barefooted. She succeeded in getting some leather, but could find no one to make it up.

AUGUST 26th HOOKE's division, with a brigade of KEARNEY's under ROBINSON, attacked JACKSON, after his success at Manassas, at Bristow, and succeeded in driving him from the field.

THE rebels were repulsed all day on Friday, August 29th, until they attacked McDOWELL's corps, when he fell back without fighting and left sixteen guns exposed—thirteen were taken.

A GREAT battle was fought on Sunday, September 14, near Midletown, Md., and resulted in a glorious Federal victory. The rebels are retreating to Virginia, with McCLELLAN in hot pursuit.

THE ladies at Warrenton welcomed the rebels on their return from Catlett's Station most enthusiastically, embracing them, and their patriotism even overflowed in kisses. They decorated POPE's horse with ribbons.

THE New York *World* thinks that the rebels would not take ten millions of dollars for their spoils at Catlett's Station. It being POPE's headquarters, his private papers, horses, uniform and tent equipage were among the trophies.

THE Provost-Marshal took down the bulletins put up by the various papers in New York, because a crowd collected around them and there seemed to be quite an excitement. The *World* makes a strong protest against the act.

A POLE, who was in a Georgia regiment, and is one of our prisoners, was taken with nineteen of his men, and was the only one of the party who had shoes. The privates had their feet bound up with rags, which were blood-clotted.

EIGHT car-loads of hospital stores and supplies, which were contributed by the citizens of Boston on the Sunday after the battles at Centerville, were forwarded by Adams' Express Company and delivered at Washington free of charges for freight.

ON rebel authority we have the following: Three hundred and sixty Union men, from PIERPONT's dominions, joined Gen. LORING a few days since, and our intelligence is that these deluded men now see the error of their ways and are daily flocking in crowds to our standard.

AN attack was made on Manassas by the rebels August 26th, in which they succeeded in taking an entire battery of eight guns, a large amount of stores and two locomotives. It was at first supposed to be but a raid, but it was soon known to be the advance of the entire Army of Virginia.

A DISPATCH to Sec. WELLES, dated Cairo, August 24th, says that the rebel transport, Fair-play, was captured, containing 1200 new Enfield rifles, 4000 new muskets with accoutrements complete, a large quantity of fixed ammunition, four field guns, mounted howitzers, and some small arms.

THE Richmond *Dispatch* says that anything less than armed intervention by several of the leading powers of Europe, will do their cause any good; that an alliance with France or England would only exasperate the North, and adds that no one power in Europe can successfully invade the North.



THE GENESEE FARMER FOR 1863.

To Our Agents and Friends.

We have not yet prepared our List of Premiums for 1863; but this much we can safely say—they will be fully equal to any offered in previous years. In the mean time, we would suggest to our friends that the present season of Fairs is a proper time to speak a good word for the *Genesee Farmer*. Put a pencil in your pocket, and take down the name of any one who is willing to subscribe for 1863, and say to him *that by subscribing at this time he can have the last three numbers of this year for nothing!*

For fifty cents we will send the October, November and December numbers of this year and the whole volume for 1863 to all who subscribe during the present month of October.

To those of our friends who design competing for next year's Premiums this will afford a good opportunity to commence canvassing. We shall keep an accurate account of all names of subscribers sent in now, and give credit for them in awarding the Premiums.

We think our readers will admit that the *Genesee Farmer* was never more useful and interesting than at present; certainly never has so much labor been bestowed upon it, or so much money expended in illustrations. It is our firm determination and constant endeavor to make it more and more worthy of that extensive patronage it has so long enjoyed.

TELL YOUR NEIGHBORS—That by subscribing for the *Genesee Farmer* for 1863 at this time, they will get the last three numbers of 1862 for nothing.

WHY WOOL INCREASES IN WEIGHT BY KEEPING.—A correspondent of the *American Stock Journal* thinks that wool packed up in the summer will weigh more the next winter *because the warm, light air which permeates it when put up is displaced by the cool, heavy air of winter*. In other words, that the *air* which it contains, and not the wool, weighs more in summer than in winter. Now, while it is true that the air is heavier in cold than in warm weather, yet as applied to the case under consideration this fact has no influence whatever, because the air in which the wool is weighed is as heavy as that contained in the wool. A bag which will hold a pound of atmospheric air, will weigh no more when it is full of air than when it is folded up and empty, because the atmosphere in which it is weighed is as heavy as that in the bag. So of the wool. If it is heavier in winter than in summer, it cannot be owing to the heavier air which it contains. The air weighs *nothing* either in summer or winter. A pound of water surrounded by water of the same temperature, weighs nothing; so a pound of air, surrounded by air of the same temperature, weighs nothing.

NOTES ON THE WEATHER FROM AUGUST 15TH TO SEPTEMBER 16TH, 1862.—The weather has continued fine to the end of August. The temperature of the first half was 72.9°, or 2.5° above the mean for twenty-five years. The last half was cooler, being 66.7°, or 0.8° below the average. The mean of the month was 69.7°, or 1.2° above the average.

The hottest noon was 88° on the 26th, which was also the hottest day, 75.7°. The coldest morning at 7, was 49° on the 30th, which was the coldest day, 57.7°; but the coldest noon was 65°, on the 24th. The heat and cold of the month is much like that of August of last year.

The rain of the month was only 2.22 inches; several thunder showers. On the 22d and 26th, very heavy showers, with almost constant lightning for two hours, passed north of us, and were followed with great fall of temperature.

The harvest of wheat was great and finely secured. Apples and pears became plenty, and plums were fine; apricots had disappeared, and were followed by peaches from our own vicinity, many of which were sent away in the last week. Peaches are a fortnight later than two years ago. All vegetables of the finest quality and abundant in their season. A very fine month of August.

September began with heavy thunder and rain at 2½ A. M. of the first, and in the day a great rain fell of 1.71 inches. At Buffalo the storm began at 11 P. M. the evening before, with high wind, but not so much wind here, so that the storm was three hours in coming from Buffalo here—the velocity less than twenty miles an hour. Very cool days were the 2d and 3d. Though the heat was only 43° at 7 A. M. of the 3d, very little frost was seen about us. These were cold days. More frost on the 14th, which touched in low places the tenderer leaves. Rain on the 12th was 0.22 inches, and on the 15th was 0.17 inches, being 2.10 inches for the half month, or very nearly equal to all the rain of August. The storm of the first of the month moved from west to east, and began at Marquette, on Lake Superior, at 9 P. M. of August 31st, two hours earlier than at Buffalo.

Some frost occurred on the 3d of the month, doing little injury, and more on the 14th, still injuring plants but little. The first frost of last year was in October, and very severe.

The season has been fine; fruits have matured. Peaches now abundant, and of the finest quality, at moderate prices.

The cold change at the beginning of the month extended from Lake Superior eastward over this State and all New England.

The comet, which appeared with little show before the 15th of August, was nearest the earth on August 26th and disappeared some days ago, not having been disposed to make a display.

The temperature of this half was 64.2°, only 0.3 above the mean for twenty-five years. The heat was at noon of the 6th 86°, and the coldest morning was 43°, on the 3d.

THE GENESEE FARMER.—We have been favored with this valuable agricultural monthly for September. As a friend recently remarked, we do not understand how Mr. HARRIS publishes so good a monthly for the small subscription price asked, unless the *Farmer* has an enormous circulation.—*Lapeer County (Mich.) Republican.*

NEW YORK STATE FAIR.—Notwithstanding the excited condition of the public mind, the indications now are that we shall have a good exhibition. We trust the farmers of Western New York, their wives and daughters, and the sons that have not gone to the war, will turn out in full force. Next to the maintenance of the Government, the improvement of our agriculture is of most importance to the prosperity of the American people; and next to the agricultural press, the annual exhibition of the different Agricultural Societies are the most important means of introducing and enhancing improved methods of cultivating the soil and increasing the productiveness of the farm. Let there be a grand assemblage at Rochester the first week in October. We shall be happy to make the personal acquaintance of our readers on that occasion.

One word more: *Do not neglect your County and Town fairs.* They are of as much, if not greater, importance to the improvement of agriculture as the more extensive exhibitions. Come to the State Fair if you possible can; but at all events spare no efforts to make your own local exhibitions increasingly useful and popular.

HEALTH OF THE ARMY.—There is no doubt that a great deal of physical suffering and sickness in the army might be avoided by proper food and drink. The late DAVID THOMAS, who explored the line of the Erie Canal from Rochester to Buffalo, and afterward superintended its construction as Chief Engineer, had an unusual and most intuitive knowledge of physiology as connected with disease. His first or exploring company occupied an entire summer in passing from Rochester to Buffalo through a new country, and encamped in tents. The members of this company were ordered to drink no water that had not been previously *boiled*, (either for tea, coffee, or otherwise,) and intoxicating drinks were prohibited. All who observed these orders remained well during the summer; those who broke them were taken with fevers. It was the first strictly temperance company, probably, that had been employed in such service; and, for the amount of exposure, passed through remarkably unharmed, with the exceptions stated. A similar course with the United States Volunteers would doubtless save thousands.

Another very important requisite for the preservation of health, is a regular supply of *fruit* with the food. We have met with those who have emigrated early to the West, and were exposed to the epidemics which formerly prevailed in newly-occupied regions, who have stated that when such a supply could be obtained, they have nearly always escaped disease. Only a few days since, a resident for some twenty years in one of the Western States informed us that when removing there, they took a large amount of *dried fruit*; and although enduring many privations the first season, the whole family remained healthy, as long as the supply of dried fruit remained. The next season and afterward, notwithstanding the addition of many comforts not before possessed, several of the family suffered from sickness. This is an abundant fruit season; and it may be well to secure a large amount for the coming autumn by drying, for those who are absent from the comforts of home.—*Country Gentleman.*

THE CROPS IN ENGLAND.—The English papers are filled with gloomy accounts of the late harvest. The *Agricultural Gazette* has reports from about 200 gentlemen in different sections of the country, and the editor, in remarking on these reports, says: "There can be no doubt that the wheat harvest of 1862 is one of the worst we have had for many years." The last *Mark Lane Express* says: "Seldom has a season so altogether unpropitious in its opening been followed by so little change for the better. One looks on 'the summer' of sixty-two as chiefly remarkable for three or four hot days—a very oasis in a desert of damp, ungenial weather." It thinks that "so far as the yield can yet be proved, it is fearfully below an average."

SELECTING SEED WHEAT.—The *Maine Farmer*, in an article on this subject, mentions the following interesting fact:

It will be remembered that at the meeting of the Board of Agriculture last winter, Mr. Haines, of Aroostook, stated that he one year separated his seed wheat, so as to have the largest, heaviest kernels only to sow. In this way he obtained about one peck from a bushel. A bushel and a half of this selected wheat was sown side by side in another field with wheat uncleaned, and the former was four times as good as the latter, and the yield correspondingly heavier. The fields upon which it was sown were very uniform in character throughout, and the difference in the looks of the wheat could be distinguished as far as the field could be viewed so as to see the grain.

SIZE OF SHEEP.—The girth of the First Prize Rams at the last Fair of the Royal Agricultural Society, was as follows:

Oxfordshire Down.....	5 ft. 3 in.
Shropshire Down.....	5 ft.
Cotswold.....	5 ft.
Hampshire Down.....	4 ft. 7 in.
Leicester.....	4 ft. 7 in.
South Down.....	4 ft. 6 in.

They were about sixteen months old.

FOUR HUNDRED AND EIGHTY PAGES FOR FIFTY CENTS!—By subscribing for the *Genesee Farmer* at this time, a large book of four hundred and eighty pages, filled with agricultural and horticultural information, and other matter interesting to every cultivator of the soil, well illustrated with wood engravings, can be obtained for the nominal sum of fifty cents! Who need be without an agricultural paper?

THE GENESSEE FARMER.—The September number of this welcome agricultural periodical has come to hand. Repeatedly we have had occasion to recommend this magazine to farmers and country readers. We may now observe that it cannot fail to prove of interest to city people of a horticultural turn. A good portion of its space is devoted to horticultural and floricultural matters. A series of articles entitled "Walks and Talks in the Garden" convey important facts in gardening in a most delightful way.—*Kingston (C. W.) Daily News.*

A NEW AGRICULTURAL JOURNAL.—DR. C. W. GRANT, of Iona, near Peekskill, N. Y., has started a new monthly horticultural and agricultural journal, which is styled "*Landmarks.*" Dr. G. has had large experience as a horticulturist and is an able writer, and cannot fail to make a useful paper. The price is \$1.00 per annum.

THE RURAL ANNUAL AND HORTICULTURAL DIRECTORY for 1863 is now in course of preparation. We hope to make it fully equal to any of the seven previous volumes.

Agricultural Items.

PREPARED EXPRESSLY FOR THE GENESEE FARMER.

J. H. HOLLISTER, of California, has a flock of eight thousand sheep.

ENGLAND consumes 300,000 bushels of grain *per day* more than she produces!

A cheese sent to the International Exhibition from Canada weighed 1,043 lbs.

THE Wisconsin State Agricultural Society has decided not to hold any Fair this year.

THE early sown spring wheat this year is said to be much better than the late sown.

THE crops in Maryland are almost a failure, owing to the depredations of the grain aphs.

DURING a single week in August, there arrived at Cincinnati over ten thousand bushels of peaches.

IN the Iowa Homestead of Aug. 7th, we notice no less than seventeen advertisements of stray horses.

MCDONALD, of Baltimore, the owner of Flora Temple, has sold all his blooded stock and has abandoned the turf.

THE Shakers it is said are joining the Jews and Mahometans, in eschewing pork—because they think it is unhealthy.

THE crop of flax seed this year is said to be unusually large. That of Ohio alone is estimated at a million bushels.

PARSON BROWNLOW, of Tennessee, has accepted an invitation to deliver the address at the Michigan State Fair, Sept. 23—26.

THE Russian Government has recently purchased some Shorthorn cattle, Oxford Down and Southdown sheep and other improved stock, in England.

C. E. GOODRICH, the great potato authority at Utica, N. Y., says this is, thus far, the most prosperous potato season of any during the last 18 years, with the exception of 1852.

THE largest prize Shorthorn bull of his age, at the late show of a Royal Ag. Society, was 8 ft. 8 in. round the girth. He was near 2½ years old. At the same age, the Shorthorns were larger than the Herefords.

THE Illinois State Fair was appointed to be held at Peoria the first week of October. It appears that the Fair grounds have been appropriated to military purposes, and it has been decided not to hold any exhibition this year.

JOSIAH QUINCY, Jr., has a farm of 200 acres, which he devotes to producing milk for the citizens of Boston. He keeps from 100 to 130 cows. They are kept in the barn all the year round. He soils his cows in summer with green food. Corn, millet, barley, rape and other grains and plants are grown, and cut green for this purpose. By this means he has raised the farm to a high degree of productiveness. He cuts about 400 tons of hay per annum. It averages from two to three tons per acre. The cows are principally Natives and Ayrshires; the average yield is from 8 to 10 quarts of milk per cow. As soon as one fails to give 5 or 6 quarts, she is fattened for market. Some cows at this time give 15 quarts per day.

Inquiries and Answers.

CORN HUSKER.—(JOHN WILLIAMS.) R. L. HOWARD, of Buffalo, manufactures a corn husker, which is said to be good, but we have never used it. A very convenient thing to assist in husking corn is a peg of hard wood about four inches long, sharp at one end, and fastened to the hand by a leather strap passing over the two middle fingers. The point



comes up between the thumb and fingers, just right to use instead of the thumb-nail in tearing off the husks, and out of the way in handling and breaking off the ear. It is of especial use if the corn has been cut a little green and the husks are thick and tight.

SOWING WINTER RYE.—(N. H.) Rye may be sown both earlier and later than winter wheat. On corn land, from which the corn cannot be removed in time to sow wheat with safety, rye may be sown and do well. It succeeds well on very light sandy soils—on soils too light and too poor for winter wheat. If sown early a bushel and a half of seed per acre is sufficient—if later, two bushels. It germinates slowly, and if the land is wet it is apt to rot in the ground when sown late.

SORGHUM FOR SUGAR.—(W. M.) We have had no experience in making sugar from sorghum. We believe a slight frost does not hurt it if ground up immediately, before it has time to ferment and sour. For making syrup grind the whole stalks, except the extreme upper portion; for sugar, cut off one-third of the upper portion and feed it to stock.

PRESERVING WOOD.—(M. ALLEN.) The process you allude to is to soak the shingles three or four days in a solution of blue vitriol (sulphate of copper). About a pound of vitriol to two quarts of water is the proper strength. Posts should be soaked a week.

COAL TAR FOR FENCE POSTS.—The New York *World* says coal tar can be obtained for a trifle at our gas works—at a less rate, it is said, than before the discovery of oil springs—and abundant testimonies from practical men show that it is highly preservative. Whether its odor will drive the cut-worm forty rods, skedaddling, we are not certain. It is rather offensive to human olfactories; but when we consider that its odor is not injurious, but is rather healthful than otherwise, the offense will be somewhat diminished. Heat it to boiling, and apply it hot to the whole base of the post, from the end to about a foot above ground. When hardened apply another coat, and set the post when dry. In setting a fence post, tamp it very hard at the bottom. If you then tamp it still harder at the top, the middle will be solid also, and the post will stand firmly. We have set thousands, and they did not make a crooked fence—would hardly have staggered if they had been drenched with new rum. But they rotted off mighty soon at the ground surface, and we wished they had been smeared with coal tar; but did not know, before setting, its value for such a purpose.

THE Ohio *Field Notes* has been merged in the Ohio *Farmer*, Colonel HARRIS, the old editor of *Field Notes* taking charge of the paper.

Literary Notices.

ILLUSTRATED HORSE DOCTOR. By EDWARD MAY-
V, M. R. C. V. S. Philadelphia: J. B. LIPPINCOTT & CO.
This is a reprint of an English work, admirably got up and
thoroughly illustrated with engravings, showing the horse in all
of comical attitudes. There is scarcely one of the four
pictures that will not cause a smile. Before we saw
the book we had no idea that the horse was liable to so many
accidents, or that the subject afforded such a fine field for the
artist's pencil. These pictures lead one to suppose that the work
is of a high scientific and practical character. If a work on
horse medicine was illustrated with comic drawings, showing a man
under the agonies of the gout, or the tortures of the
rheumatism, or shaking with the ague, we should be apt to con-
sider the author was a quack.

SON BROWNLOW'S BOOK. Philadelphia: GEORGE W.
L. B. 1862.

This is the interest felt in the redoubtable "Parson," that
tens of thousands of copies of his Book have been already sold.
Everybody desired to hear his account of the doings of the
Confederates and his own experience in the Knoxville jail, and his final
escape from Secession. Some parts of the Book are of thrilling
interest, and make one's blood boil by the recital of the suffer-
ings of the Unionists of East Tennessee. Other portions are oc-
cupied with extracts from his old paper—the *Knoxville Whig*—
with speeches made on different occasions—all readable
though not particularly interesting. The Book was evidently
written in a hurry, and was made to sell. The "Parson" never
remarkable for mildness of expression, and whatever else
he said of his Book it certainly shows his consistency in this
case.

The Markets.

OFFICE OF THE GENESSEE FARMER. }
ROCHESTER, N. Y., Sept. 18, 1862. }

Since our last report there have been few changes in the price
of Wheat and Corn. The tendency of the market has been
upward, owing to the increase of ocean freights, but prices are
well maintained. About the last of August, Oats advanced
in New York nearly 6c. per bush., but they have again receded
to previous rates. Rye has advanced from 1c. to 2c. per bush.
The Wool market has been excited, and prices have advanced
from 5c. to 7c. per lb. Common Wool is now worth 5c. per lb.
than fine. The price ranges here from 53¢ to 58¢. Some
clean tub-washed course Wool sold in New York a few
days since for 70c. per lb. Of course, this was an unusually
high and fine sample.

Wheat is scarce and in demand. There is as yet very little
of it in Barley.
The recent accounts from England prove conclusively that the
harvest has not been by any means so abundant as was antici-
pated, and it is certain that a large amount of Breadstuffs will
be imported from this country. The crops in Portugal, also, are so
poor that official notice has been given that the duty on
wheat has been removed until April next. That Europe will re-
quire all the Grain we can spare is now no longer a matter of
doubt. The last London *Mark Lane Express* says: "The better
the wheat crop, the less satisfactory it appears." It also says there is little old Grain on hand,
that they "must again be in the condition of large importers
the year through."

The exchange on England has again advanced. It is now quoted
at 100 to 131—that is to say, from 20 to 21 per cent. above its real
value. In other words, the high premium on Exchange in-
creases the value of American Produce full 20 per cent. Every-
thing favors an increase of prices, except the high rate of rail-
road, canal, lake and ocean freights. A great Union victory
will reduce the rate of Exchange, and this, of course, would

be followed by a reduction of prices in all articles exported; but
on the other hand, it might increase our importation of Foreign
Merchandise, and this would tend to keep up the rates of Ex-
change.

It is a remarkable fact that notwithstanding the high tariff and
the high rate of Exchange, our importations of Foreign Goods
are much larger than they were last year. These goods cost
us from 50 to 70 per cent. more than formerly, and yet the de-
mand, contrary to expectation, is increasing rather than dimin-
ishing. This extravagance in dress is greatly to be deplored, but
it has the effect of keeping up the rate of Exchange, and that
keeps up the price of our agricultural products.

Butter and Cheese have advanced. The exportation of these
articles to Europe never was so great as at this time. The pre-
mium on Exchange is more than sufficient to pay the freight,
commission and whole cost of exportation, so that Butter and
Cheese ought to be as high in New York as in London.

ROCHESTER, September 18.—White Wheat, \$1.25@1.30; Red,
\$1.05@1.10. Corn, 56¢@60c. Oats, 42¢@46c. Barley, 60¢@65c.
Beans, \$1.50@2.00. Butter, 12¢@13c. Eggs, 10¢@12c. per doz.
Wool, 63¢@58c, the latter for course. Milled—Shorts, 7c. per
bush. of 12@15 lbs., or by the quantity at \$7.00@5.50 per ton.
Shipstuffs, \$12@13 per ton; Fine Middlings, \$15@23 per ton.

NEW YORK CATTLE MARKET.—September 16.—Last month we
noted an advance of ½c. per lb. on Beef Cattle. This advance
has been fully sustained. The average of all the sales last week
was 7½¢@8c. per lb. The greater proportion of the Cattle still
come from Illinois, and are more than an average quality. Some
of the scrubs which have been picked up at low prices and kept
in this State during the summer, are now brought into market.
They are in poor condition still—it being next to impossible to
fatten them. It is well to remark that for fattening purposes a
poor, ill-bred animal is dear at any price. [We learn by tele-
graph that the number of Cattle in market this week is very
large, and it is probable prices will decline somewhat.]

Milk Cows continue low, and those offered for sale are gen-
erally old ones which have seen their best days. They are bought
by the distillery milkmen at from \$20 to \$35 each. A good milk
Cow brings \$40 and some \$45, but they are rare.

Good Veal Calves are in demand at 5½¢; poor are sold as low
as 3½¢.

The Sheep market is active. Last week good Sheep were
worth 25c. a head more than the week previous. The average
price is about \$3.50 per head. A fat lot of 100-lb. Sheep are
worth \$4.50. Some extra fat ones brought 5c. per lb. There is
a demand for store Sheep to winter over at about \$3.00 per head.

Hogs have advanced ½c. since our last month's report, and the
market is active. Heavy corn-fed Hogs, 4¢@4½c.; medium, 3½¢
@3¾c.; light, 3¼¢@3½c. per lb. live weight.

Horses are dull. Few are offered, but enough to supply the
demand. Dealers report a scarcity in the country, and it is
thought prices must advance. The exchange on Canada, which
is now 15 per cent. cuts off the supply from that quarter. It
amounts to a duty of 15 per cent. on all articles imported from
Canada.

NEW YORK, September 17.—White Wheat ranges all the way
from \$1.35@1.55 per bush., and Red from \$1.15@1.35, according
to quality—average samples of Western and Canadian White
being from \$1.35@1.40; and of Red Winter \$1.25@1.30. Indian
Corn, mixed Western, 55¢@60c. Some choice White Southern
was sold for shipping at 58c. Barley, 55¢@1.00. Rye, 80¢@5c.
Oats, 50¢@55c. Beans, medium, common to good, \$2.25@2.75;
choice do., \$2.50@3.00; Marrows, common to good, \$2.25@2.75;
choice do., \$3.00@3.25. The new crop is not yet in. The above
rates are for the old, and are merely nominal.

Butter—Supply light. Ferkins, State, 15¢@16c.; Western Re-
serve, 14¢@15c.; Pennsylvania and Western, 12¢@13c.; Grease
Butter, 9¢@9½c. per lb.

Cheese—Extra choice, 9¢@9½c.; choice, 7½¢@8½c.; poor to
fair, 6½¢@7c. per lb.

Eggs—16¢@16½c. per doz.

Potatoes, choice Mercers and Peachblows, \$1.85@2.12 per bbl.;
common, \$1.35@1.62; Buckeyes, \$1.25@1.50; Junes, \$1.60@
1.25 per bbl.

Apples—\$1.00@1.50 per bbl.

Pears—Common, \$1.00@1.50 per bbl.; Bartlett's, \$3.00@5.00;
Seckels, 8.50@4.00.

Plums—Common, 75c. per bush.; Blue Gage, \$1.50; Wash-
ington and Green Gage, \$2.00.

Wool—60¢@65c. per lb.

Hay—\$13@14 per ton.

Hops—New crop, 16¢@20c.; last year's crop, 13¢@18c. per lb.

Timothy Seed—\$1.75@2.00; rough Flax Seed, old, \$2.00; new,
\$2.10; Clover Seed, 8½c. per lb.

ST. LOUIS, September 11.—Common Fall Wheat, 60c.; fair to
good, 65¢@70c.; extra, 75c. Corn, 32¢@35c. Oats, 35¢@40c. Hay,
in bales, \$15 per ton. Flax Seed, \$1.25 per bush. White Beans,
\$2.25@2.75 per bush.

CHICAGO, September 16.—Red Winter Wheat, No. 1, \$1.05@1.10; No. 2, 90@32c.; rejected, 80@32c.; Spring Wheat, No. 1, 55@88; No. 2, 75@75c.; rejected, 65@67c. Corn—Mixed, 30@32c.; Yellow, 35@36c. Oats, 31@33c. Rye, 40c. Barley—Sales of first quality have been made at 55c.; of poor lots at 35c. Beans, \$1.25@2.50, according to quality. Timothy seed, \$1.40@1.50. Flax Seed, \$1.30@1.40. Butter, 10@11c. Eggs, 7@8½c. per doz. Apples, \$1.00@2.00 per brl. Potatoes, 35@40c. per bush for good qualities.

TORONTO, September 16.—Fall Wheat 90c.@\$1.00; Spring, 50@56c. Barley, 50@56c. Rye, 60c. Oats in demand at 35@40c. Peas, 50c. Potatoes abundant, and retail from 30@40c. per bush. Apples, \$1.00@1.50 per brl. Fresh Butter is selling at 15c.; a week or so ago it was worth 20c. Eggs, 11@12c. per doz. Chickens, 30@40c. per pair. Ducks, 40@50c. per pair. Turkeys, 50c.@\$1.00 each. Hay is advancing—\$20 per ton has been paid. Straw, \$16 per ton. Wool, 40@45c. per lb. Pelts, 70@75c. each.

LONDON, September 1.—American White Wheat, \$1.71@1.83; Red, \$1.56@1.68. Barley, foreign for grinding, 72@90c.; for distilling, 90c.@\$1.02. Oats, 60@51c. Peas, \$1.08@1.26. Indian Corn, \$1.02@1.08. Butter, 22@23c. Cheese, Cheshire, 12@16c.; American, 8½@11½c. per lb. Wool, 31@41c. per lb. [We have five days later news by telegraph. Wheat had declined 10@12c. per bush.]

PHILADELPHIA, September 16.—White Wheat, \$1.35@1.45; Red, \$1.25@1.31. Rye, 70@65c. Corn, 70@71c. for prime Yellow. Oats, 36c. Timothy Seed, \$1.75@2.00; Clover Seed, \$5.00; Flax Seed, \$1.80@1.90 per bush.

PASTURING MEADOWS.—An old farmer writing to the *Boston Cultivator* gives several facts from his experience, going to show that newly-seeded clover does best when pastured down in the fall, and that "old fog" meadows never produce as valuable hay as they would if fed down moderately in autumn. The grass ought to start close to the ground, and not from the stalks left by the scythe, as in that case the sprouts do not get sap enough to support them, and give that quick growth that is required for good hay. He adds, also, that he never knew good corn to grow on land that had been mowed several years, and the hay carried off, and the old fog left on the land unfed.

At the recent sale and letting of J. C. TAYLOR'S celebrated South Downs at Holmdel, N. J., 10 shearing rams sold for \$523; 11 ewes for \$479.50; 10 ram lambs for \$201, and 14 ewe lambs for \$386. This is an average of \$35 per head for sheep and lambs. For such magnificent sheep these are very low prices. Five rams were rented for the season for \$305, or an average of \$61 each.

THE APPLE CROP.—The apple crop hereabouts promises to be the best for many years. The trees every where are loaded with thrifty fruit. This section will afford tens of thousands of barrels of fruit for other markets.

At the office of the *Ohio Farmer* is a sample of wool taken from an ewe five years old that never had been shorn and never had a lamb. It is *three feet long*!

ADVERTISEMENTS.

A FEW short advertisements of interest to farmers—and only such—will be inserted in the *Genesee Farmer* for twenty-five cents a line, or \$2.50 per square, each insertion, payable in advance. To secure insertion, they should be sent in by the 15th of the previous month. The *Farmer* has large lists of subscribers in every State and Territory, and in all the British Provinces. (It has nearly 5000 subscribers in Canada West alone.) There is no better or cheaper medium for advertising everything of general interest to rural residents in all parts of the United States and Canada.

We will also insert a few "Special Notices," if appropriate to our columns, at fifty cents a line.

S. M. PETTENGILL & CO.

No. 37 Park Row, New York, & 6 State St., Boston
are our Agents for the GENESSEE FARMER in those cities, and authorized to take Advertisements and subscriptions for us at the Lowest Rates.

MOLE PLOWS—By J. DUNHAM, Ithaca, N. Y.

3—t

TO BUILDERS AND FARMERS



SOLE TILE

BUILDING BRICK AND DRAIN TILE.

THE Rochester Brick and Tile Manufacturing Company is now prepared to meet all demands of either Builders or Farmers wanting Brick or Tile. Pipe Tile of all sizes from two six inches, and Horse Shoe from two to ten inches. The Tile manufactured by this Company are longer than that made other manufacturers, being 16 inches in length, 1,000 pieces making 80 rods. They are also strong, hard burned, and every way of superior quality. The following list of prices shows the rates at which we offer our Tile, and the facilities thus afford farmers for cheap underdraining:



HORSE SHOE TILE

	Per 1000 pieces.	Per rod
2 inch Pipe	\$10 00	20
3 " "	15 00	30
4 " "	30 00	50
5 " "	50 00	75
6 " Round Tile in two pieces	50 00	\$1 25
2 " Horse Shoe Tile	8 00	
3 " "	12 00	
4 " "	16 00	25
5 " "	25 00	37
6 " Pipe	60 00	\$1 00
10 " " in two pieces	100 00	1 75

Persons wishing Tiles will find it to their interest to call at the office of the Company, 22 Buffalo street, Rochester, before purchasing elsewhere.

A large quantity of Brick always on hand.

All orders for Bricks or Tiles, to be shipped by railroad canal, will be promptly attended to.

For further information, address
oc W. OTIS, Superintendent, Rochester, N. Y.

TO BE SOLD BY AUCTION,

On Thursday, Oct. 16, 1862,

THE WELL KNOWN HERD OF NORTH DEVON CATTLE consisting of more than Forty head of Cows, Bulls and Heifers; one hundred and seventy West and Southdown Ewes and Rams; pure blooded Essex Pigs, in pairs fit for breeding.

Catalogues of description, with pedigrees, may be had fourteen days before the sale, on application at the office of the Galt & Porter, if by letter, prepaid. Credit of 12 months may be had on approved endorsed paper.

THE SPLENDID FARM,

Consisting of upwards of Three Hundred acres, to be sold by private bargain, on accommodating terms.

Wilmot, Waterloo Co., C. W., Sept. 1862.

DANIEL TYE. oc1t

SHROPSHIRE AND SOUTH DOWN DRAFT SHEEP FOR SALE.

Shropshire Rams,

Shropshire Ewes,

South Down Rams,

South Down Ewes.

Inquire at 16 and 18 Chambers street, New York, of JACOB LORILLARD. oc-3t

"THE HISTORICAL POCKET WAR MAP"—ASHER & CO., Publishers, Indianapolis, Ind. It is a convenient reference, as it gives a history of seventy-two battles and skirmishes, and marks specially the location of each. AGENTS WANTED. Sample sent on receipt of thirty cents. oc-1t

20,000 DELAWARE VINES, 200,000 CONCORD VINES—strong, healthy and cheap. Send for Catalogue of Prices. Address WM. PERRY & SON, Bridgeport, Conn. sep3t

PORTANT TO FARMERS AND FRUIT-GROWERS

Proposed Re-Issue of the Rural American.

THE subscriber having received many solicitations from his old subscribers to republish the "Rural American," which discontinued in 1861, through the pressure of the war times in existing, now proposes to re-issue it, as a semi-monthly, to be published in Utica, N. Y., on the 1st and 15th of each month, first No. to date January 1st, 1863, provided that one thousand subscribers shall offer to subscribe within three months, merely sending in their names, without any money till the paper shall be published.

The price of said paper will be only FIFTY CENTS a year, and Concord, Delaware, Diana, Rebecca, and all the choice kinds of peaches, to the value of fifty cents, will be sent free to subscribers! And in your names, and a circular will be sent, giving all the details of this splendid offer, which will, it is believed, succeed, withstanding the continuance of the war, and the unsettled state of things generally.

The paper will be entirely filled with articles on practical Agriculture, Horticulture, Bee-Keeping, &c. Grape growing will receive special attention, and the paper will be worth double its price, to say nothing of the gratuities in choice grape vines.

B.—My old subscribers will hear of something to their advantage by sending me their names. Address
T. B. MINER, Clinton, Oneida Co., N. Y.

FARMERS AND OTHERS that wish to obtain quickly, in cash, the highest market prices for their farm produce, must call all their butter, cheese, lard, eggs, poultry, hams, game, vegetables, green and dried fruits, flour, grain, seeds, &c., to

JOSIAH CARPENTER,
Produce Commission Merchant,
32 JAY STREET, NEW YORK.

returns the cash in ten days after receipt of goods, makes advances on consignment, or buys for cash; and sends a weekly price Current to all shippers. oct21

CONCORD GRAPE VINES, AND BLUE-BLEECKER GAGE PLUM TREES.

NOW OFFER FOR SALE ABOUT FIFTEEN THOUSAND two-year old Concord Grape Vines, either singly, by the dozen, hundred or thousand, and at very low prices. Persons wishing to purchase will please state how many they want, and will at once send them my lowest terms, with no variation to distant customers. The Concord is now well-known as being the best Vineyard and Garden Grape Known, ripening early and yielding the best wine of any kind known. More full details of character of the Grape sent to all applicants.

Also offer for sale one thousand one-year old Blue-Bleecker Gage Plum Trees at \$1 and \$2 per dozen. This is the only one that is positively proof against the Curculio, bearing so sensibly that that insect fails to perforate more fruit than ought to drop off. I am compelled to drop up all my trees this season to keep them from breaking down with the load of fruit upon them. No better plum exists for all purposes.

T. B. MINER,
Clinton, Oneida County, N. Y.

B.—A credit of from three to twelve months will be given to subscribers, according to responsibility or security offered. sep-21

FARM FOR SALE!

ADJOINING THE DEPOT—In Warren, Penn., of seventy-five acres of land, with a new Frame House, nearly all enclosed below in a good substantial manner, with a good Stone wall under the same. About twenty-five acres under improvement, with seven acres more which might be put into wheat the next fall with trifling expense. It is first rate wheat land, and well supplied with pure water from never-failing springs. For one who is desirous of going into the fruit-growing business, no location can be surpassed in Western Pennsylvania, having the advantage of a home market with the highest prices.

One-half of the purchase money may lay for one or two years, if desired. I can be seen in Erie every day (Sundays excepted) from 11 A. M. till 3 P. M., and in Warren from 6½ P. M. till 8 A. M. Any communication of inquiry directed to Warren, Penn., will be promptly answered.

Warren, Sept. 1, 1862.—3t D. M. JAMES.

LODI PHOSPHATE,

COMPOSED OF RAW BONES DISSOLVED IN SULPHURIC acid, night soil, guano and wool dust. Made by the Lodi Manufacturing Company expressly for winter grain and grass lawns. This article will be warranted to contain no other matter than those mentioned above, and is undoubtedly the very best manure in market from its composition, and will be sold at low price of \$45 per ton, packed in barrels of 200 lbs. each, and weight delivered free on board of vessel or railroad in New York city.

Wholesale of first quality for sale at usual rates. Apply to
THE LODI MANUFACTURING CO.,
66 Cortland street, New York.

sep-21

RECEIVER'S SALE OF NURSERY STOCK.

THE undersigned, appointed Receiver of the nursery stock of the late firm of Gregory & Goldsmith, now offers the same for sale to Dealers and Nurserymen. The stock consists of 40,000 Dwarf Pears, 10,000 Standards, 20,000 Cherries, 12,000 Apple trees, and a large variety of Evergreens and Ornamental Shrubs, on the late farm of James H. Gregory, adjoining the nursery of Ellwanger & Barry. The property is desirable and will be sold low. Application should be made at once to

PATRICK BARRY, Receiver, or his
Agent, JAMES H. GREGORY.
Dated August 1, 1862.—3t

THE CHILSON FURNACE.

THIS celebrated Furnace, which has been so extensively used in public and private buildings, and which has stood the test of experience after various attempted imitations, is still for sale in Rochester. The different sizes are fitted for all classes of buildings, from the cottage to the church. They can be purchased at lower rates than ever before, and any one desiring to manufacture these Furnaces can, on short notice, be furnished with a full set of iron patterns for all the different sizes.

Further information can be obtained from the Editor of this paper. sep—11

FOR SEWING MACHINES.

JONAS BROOK & BROTHERS'
PRIZE MEDAL SPOOL COTTON,

200 or 500 yard spools, White, Black, and Colored.

FOR MACHINES, use BROOK'S PATENT GLACE for upper thread, and BROOK'S SIX CORD RED TICKET for under thread. Sold by all first class dealers in city and country; also in cases of 100 dozen each, assorted numbers, by WM. HENRY SMITH, Sole Agent, 36 Vesey street, New York. Ja—1y

Back Volumes of the Genesee Farmer.

WE have the back numbers of the Genesee Farmer, handsomely bound, for the years 1846, 1847, 1848, 1849, 1853, 1855, 1856, 1857, 1858, 1859, 1860 and 1861. They will be sent free to any address for \$1.00 each. The last six volumes, from 1856 to 1861 inclusive, handsomely bound, will be sent free by express, or by mail postage paid, for \$5.00. Address

JOSEPH HARRIS,
Publisher and Proprietor of the Genesee Farmer,
Rochester, N. Y.

FOR SALE.

COTSWOLD, LICESTER AND LINCOLNSHIRE SHEEP, male and female. Durham and Galloway Cattle, male and female. Thirty Bucks, one year old, weighing from 220 to 285 lbs. each; price, from \$50 to \$100 each. Canadian currency. A large number of Buck Lambs—price from \$30 to \$40 each.

I intend to exhibit a number of Sheep at the New York State Fair at Rochester.

JOHN SNELL,
Edmonton Post-office, C. W.,
sep-21 20 miles west of Toronto on the G. T. R.R.

100,000 PLUM TREES.

TO NURSERYMEN, DEALERS AND PLANTERS.—60,000 2 and 3 years from bud, 4 to 6 feet stock, \$20 per 100.—Second size, 8 to 4 feet, \$15 per 100. 40,000 1 year old, 3 feet, \$12 per 100. These Plum trees are budded on Plum stock, not on Peach, as those worked on Peach are worthless in a few years. Address,
C. REAGLE & SON,
Schenectady, N. Y.

sep-21

CLOVER HULLING AND CLEANING MACHINES.

HULLS AND CLEANS FROM THREE TO TEN BUSHELS per hour. Late improvement, patented March 25, 1862. Description of this great machine sent gratis on application. Made and for sale only by M. H. MANSFIELD, Patente, Ashland, Ohio.

sep-31

AGENTS WANTED AT ONCE

FOR A COMPLETE HISTORY OF THE
REBELLION—To be issued by The Auburn Publishing Co. Prospectus and Descriptive Circulars sent free to those who write to
E. G. STORKE, Auburn, N. Y.

WOOD CUTS FOR SALE.

WE will sell Stereotypes of the Wood Cuts used in the Genesee Farmer and Rural Annual and Horticultural Directory. A book containing impressions of over Seven Hundred of these cuts will be sent to those wishing to purchase on the receipt of 50 cents. The book contains an index, showing where descriptions of the cuts will be found.

Address JOSEPH HARRIS, ROCHESTER, N. Y.

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The Original Howe Sewing Machine!

RECENT and important improvements having been put to this Machine renders it now the most perfect before the public, and persons at a distance can order a Machine with a guarantee of its prompt and safe delivery, and that they will be able to manage it to their entire satisfaction. No more breaking needles! No more missing stitches! No trouble in making any garment, however delicate or heavy, on the same Machine, either in cambric, cloth, or leather. No person should think of purchasing a Sewing Machine without first seeing this—the latest and greatest triumph of the original inventor of the Sewing Machine.

Send for a Descriptive Catalogue of styles and prices. A few responsible Agents would be dealt with liberally. Address

THE HOWE SEWING MACHINES,

July, 1862.—24

437 Broadway, New York.

MORETON LODGE, NEAR GUELPH, C. W.

IMPORTANT SALE OF IMPORTED AND PURE BRED

SHORT-HORNED CATTLE!

Cotswold, Leicester and South Down Sheep, Berkshire and Small White Breed of Pigs.

W. S. G. KNOWLES begs to announce that he has received instructions from Fred. Wm. Stone, Esq., to offer

FOR SALE AT AUCTION,

On Wednesday, 15th October Next,

At Moreton Lodge, near Guelph, C. W., thirty imported and pure bred SHORT-HORNED CATTLE, one hundred and fifty imported and pure bred COTSWOLD, LEICESTER AND SOUTH DOWN SHEEP, consisting of Rams, Ram Lambs and Ewes; and twenty-five Berkshire and Small White Breed of PIGS, of a few recent ages.

The SHORT HORNS are imported and bred from some of the most fashionable herds, such as Capt. Gunter's, Col. Kingscote Messrs. Tanqueray's, Ambler's, Bolden's, Bowley's, Sandy's, Jon Webb's, Smythe Owen's, and other eminent breeders. The Cotswold Sheep are imported, or bred from imported stock, from the flocks of Messrs. Rick Stalter, Brown, Langston, Garne, Wakfield and other celebrated breeders. The Leicesters are imported from Mr. Pawlett's flock, and the Southdowns imported and bred from the celebrated Buckland and Babraham flocks of S. L. Throckmorton and Jonas Webb. The Berkshire Pigs, from the finest Buckland Stock; the small White Breed, from Capt. Gunter's.

Catalogue, with Pedigrees and other particulars, are now in preparation and will shortly be issued, and may be had on application to Mr. KNOWLES, or of Mr. STONE, Guelph.

Guelph, 5th September, 1862.

TO GROWERS OF SPRING WHEAT.

CHAPPELL & SPRAGUE,

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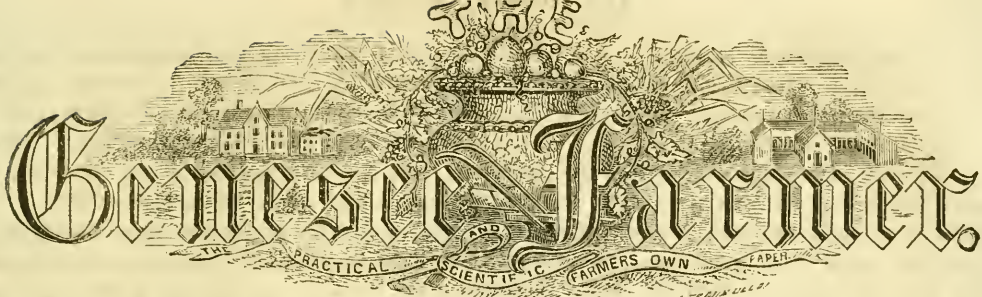
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EXPERIMENTS ON SORGHUM.

DURING the past summer we made some experiments on the Chinese Sugar Cane, with various artificial manures, the results of which may not be altogether without interest to the readers of the *Genesee Farmer*.

The soil on which the experiments were made is a sandy loam. It has been under cultivation for probably thirty years, and being on a detached portion of the farm, a mile or so from the barn-yard, it has never been manured. It is, therefore, in good condition for showing the effects of different manures. It had been down in clover and grass for three years, and was broken up last spring. It was got into a fine mellow condition, and the sorghum planted in hills about 3 feet 4 inches apart on the 4th of June.

The seed was treated as follows: Boiling water was poured on to it, and allowed to stand one and a half to two minutes. Cold water was then added, and the seed remained for twenty-four hours, the water being changed once or twice. We think if it had been allowed to soak longer it would have been all the better, as the husk is very tough and hard.

Each plot consisted of the twentieth of an acre. One row was left between each plot, without any manure, in order to prevent the plants on one plot getting any of the manure from the adjoining plots.

The manures were applied in the hill. The soil was scooped out with the hoe, the manures put in and worked into the soil as thoroughly as possible, and the fresh soil drawn over and the seed planted. This was done so as to prevent the seed from coming in contact with such manures as are known to injure the seed.

The remainder of the field was planted to Indian corn, without manure of any kind, and produced a fair crop. As compared with the Indian corn, the sorghum seed germinated slowly and the growth of the plants was quite feeble. When the plants

had got fairly started, and the roots had firm hold of the soil, the growth on some of the plots during the hot summer weather was exceedingly rapid—much more so than that of the Indian corn in the same field. On the best plots the sorghum attained a height of at least nine or ten feet.

The sorghum was cut October 7 and 8, and the stalks accurately weighed in the field. The following is the result:

No.	MANURE USED PER ACRE.	ACTUAL YIELD OF SORGHUM PER ACRE.			
		Tons.	Cwt.	Qrs.	Lbs.
1.	No manure.....	0	17	1	15
2.	400 lbs. sulphate of ammonia.....	4	3	3	5
3.	400 lbs. superphosphate of lime.....	9	9	1	15
4.	400 lbs. sulphate of ammonia, and 400 lbs. superphosphate of lime.....	6	14	3	5
5.	250 lbs. of plaster, (sulphate of lime.)...	10	4	0	0
6.	40 bush. unleached, hard-wood ashes, (2,000 lbs.).....	5	16	2	10
7.	40 bush. unleached ashes, and, 250 lbs. of plaster (mixed together.)....	7	3	3	5
8.	200 lbs of common salt.....	3	7	2	10
9.	400 lbs. sulphate of ammonia, ... 400 lbs. superphosphate of lime, and... 40 bush. of unleached ashes.....	4	14	0	0
10.	40 bush. of unleached ashes, and... 400 lbs. of superphosphate of lime.....	7	0	3	5
11.	No manure.....	1	8	0	0

Before commenting on these remarkable results, it may be well to state that on all the plots there were more or less missing hills. The seed either rotted in the ground or was injured by the manure. There should have been 201 hills on each plot; but the actual number of hills at the time of cutting was as follows:

No.	No. of Hills.
1.—No manure.....	128
2.—Sulphate ammonia.....	122
3.—Superphosphate.....	184
4.—Sulphate ammonia and superphosphate.....	142
5.—Plaster.....	184
6.—Ashes.....	162
7.—Ashes and plaster.....	169
8.—Salt.....	161
9.—Sulphate ammonia, ashes and superphosphate.....	112
10.—Ashes and superphosphate.....	176
11.—No manure.....	171

On the unmanured plot (No. 1,) it will be seen, there were 72 missing hills. Some of them came up, but seemed to die off for want of nourishment. The plot presented a very sorry appearance. Here and there a hill appeared to have got hold of something that gave it a little start, but the greater proportion of the stalks

were poor, shrivelled, spindling things, ranging from one to three feet in height—the majority not more than two feet, and many of them not a foot high. On the unmanured plot (No. 11,) on the other side of the experiments, the plants did a little better. Why we cannot say. But even here the sorghum presented a miserable appearance, the plants being only from two to three feet high, and many of them not that. As we have before said, a row was left without manure between each plot, and these rows, with the exception of here and there a hill which seemed to have got a little food from the adjoining manured row, the plants had the same starved, stunted and shrivelled appearance. With the exception of Mr. LAWES' turnip experiments, and where one plot was left continuously without manure for many years, we have never seen such a marked difference between the unmanured and manured rows as in these experiments on sorghum.

On plot No. 9, dressed with ashes, superphosphate and sulphate of ammonia, there were 88 missing hills. In this case we have no doubt that the manure injured either the seed or the young plants. The hills that were left, however, were all strong, green and healthy, and the plants seemed to have more *seed* than on any other plot.

On plot No. 2, dressed with sulphate of ammonia, there were 78 missing hills. Here, again, undoubtedly, the manure, notwithstanding the great care which was used to prevent such a result, had injured either the seed or the young plants. It should have been diffused more generally through the soil.*

Assuming that none of the hills had missed, the yield per acre would have been as follows:

CALCULATED YIELD PER ACRE, IF NONE OF THE HILLS HAD MISSED.				
No.	Tons.	Cwt.	Qrs.	Lbs.
1.—No manure,.....	1	7	0	20
2.—Sulphate ammonia,.....	6	17	1	15
3.—Superphosphate,.....	10	5	3	15
4.—Sul. ammonia and superphosphate,.....	9	9	3	11
5.—Plaster (gypsum),.....	11	1	3	0
6.—Ashes,.....	7	3	3	20
7.—Ashes and plaster,.....	8	10	0	20
8.—Salt,.....	4	3	3	23
9.—Sul. ammonia, superphosphate and ashes,.....	8	7	3	12
10.—Ashes and superphosphate,.....	8	0	0	0
11.—No manure,.....	1	12	2	22

Whether we look at the actual yield, or at that which would have been obtained if none of the hills had missed, the main features of the results are the same. The effect of plaster (gypsum or

sulphate of lime,) is perfectly astonishing. At the time of the first hoeing (July 10) we wrote in our note-book, "superphosphate and plaster the best."¹⁷ These two plots (Nos. 3 and 5) all through the season were obviously superior to any other, No. 4 gaining on them a little during September.

The superphosphate used in these experiments was made from calcined bones expressly for our own use. It was a very superior article. But we may here remark that the best superphosphate that can be made contains over 50 per cent. of plaster. The object of converting bones into superphosphate is this: Phosphate of lime is insoluble in water. It contains 3 atoms of lime, united with 1 atom of phosphoric acid. Superphosphate is *soluble* in water. It contains 1 atom of lime, united with 1 atom of phosphoric acid. Now to convert the insoluble phosphate of lime into the soluble superphosphate, we have to take away by chemical means two atoms of lime. This is done by adding sulphuric acid to the phosphate of lime in bones. Superphosphate is, then, a mixture of soluble phosphate of lime and plaster.

The 400 lbs. of superphosphate applied to plot No. 3, probably contained about 200 lbs. of sulphate of lime or plaster. If our common plaster contains 80 per cent. of sulphate of lime, the 250 lbs. applied to plot No. 5 would contain the same quantity of real plaster as the 400 lbs. of superphosphate applied to plot No. 3. If 90 per cent., it would get 25 lbs. more real plaster than plot No. 3.

The plots receiving superphosphate and plaster, are the two best plots of the whole series. Plot No. 5 is a little the best. It is probable that it received a little more real plaster than plot No. 3.

One thing is clear: *the soluble phosphate of lime in the superphosphate did no good.* On the one plot (No. 5) we have plaster alone; and on the other plot (No. 3) we have plaster and *soluble phosphate*; and yet the crop is no better from the two together than from the plaster alone. It is evident, therefore, that the phosphate did no good.

What was it that caused such an immense increase over the unmanured plot? Taking the best of the unmanured plots, and adding all the missing hills, we have still over *six times* as much produce from the plastered land as where no manure was used! To what is this owing? We frankly confess we do not know. If we say the soil was deficient in sulphate of lime, why is it that salt, which contains none, more than doubled the crop; and why did the ashes quadruple the yield? May

* Some may ask, "Why not have sown the manures broadcast and harrowed them in?" Such a method would be better; but it is difficult to sow such manures broadcast by hand without getting more or less of them on to adjoining plots. Under ordinary circumstances, we should certainly sow ammoniacal manures broadcast and harrow them in.

it not be due to the plaster accelerating the growth of the young plants, and enabling them to throw out roots and occupy the ground, and thus helping them to get all the food they required?

If this is the true explanation, the one great practical truth to be drawn from these experiments is *the importance of giving plants an early start.*

In a future number we hope to be able to give the amount of sugar and other ingredients contained in the produce from the various plots.

EXPERIMENTAL FARMERS.

TEN farmers in Chester county, Penn., have formed themselves into a club for the purpose of making experiments in agriculture. The idea is a most happy one. The farmer who originated the movement deserves the thanks of the whole agricultural community. We do not know his name, or we would put it at the head of the agricultural worthies of the age. We would — make him an honorary life-subscriber to the *Genesee Farmer*, or testify our respect in any other way that would be most acceptable to such a true friend to agricultural improvement. Long may the Experimental Farmers' Club of Chester county flourish, and may their example be followed in every county in the land, until the present guess-work system of cultivation shall give way to one based on exact and definite knowledge!

The first experiment they made was to determine the proper time to cut wheat. We have not space to give the details, which are published in the *Germantown Telegraph*, but may say that the experiments prove that the best time to cut wheat is when the grain can be pressed between the thumb and finger, and leave nothing but the husk and a thick pulp, *without any fluid around its edges.* If cut earlier, when there is a milky substance in the grain, there will be a loss; and if later, when the grain becomes hard, the weight per bushel is less, and the quality is not so good. In this particular case the wheat cut July 11 was the best; three days before or after this date made but little difference.

The Club is also making experiments to determine the best time to cut oats; also the effect of applying plaster to potatoes at different stages of their growth; and also the effect of salt and plaster, alone and mixed, on wheat and grass. They also propose to ascertain by experiment whether there is not a loss sustained by allowing manure to remain long spread before plowing in.

If any member of the Club sustains any loss in experiments, the other members make it up by contribution. This is well; for all who have had experience know that it is impossible to make experiments without more or less pecuniary loss.

One common error in making experiments is *attempting too much.* Take for instance an experiment made a few years ago on the "Model and Experimental Farm" at Petersburg, Va. The managers wished to ascertain whether wheat did best after peas or after corn. They also wished to ascertain whether guano was best harrowed in or plowed under. So some pea-land was sown with wheat, and also some corn-land. So far, so good. The result would have shown which was best. But in order to determine whether it was best to plow under guano or harrow it in, they sowed guano on the corn ground and plowed it under, and also the same quantity on the pea-land and harrowed it in! Now had these experiments been made separately, they would have shown whether peas or corn were best to precede wheat, and whether guano should be harrowed in or plowed under. As it was, the experiment proved nothing. They aimed to kill two birds with one stone and missed both!

Another point of great importance is to determine before making the experiment what it is you wish to ascertain. Sit down and draw out a plan of the experiments, and then imagine the crops harvested with certain results, and see if they prove what you wish to find out. This may seem unnecessary, but the absence of a single experiment to determine a certain point may render the whole series of experiments of no value. For instance: A few years ago a committee was appointed to make experiments on the "Massachusetts Model Farm" at Westboro. They undertook, among other things, to determine the value of different artificial fertilizers. They sowed guano, superphosphate, poudrette, &c., &c., on different plots, *but forgot to leave any plot without manure!* so that when they got through they could not tell whether the manures did good or harm!

SMALL-POX AMONG SHEEP.—The small-pox has attacked the sheep in Wiltshire, England, to such an extent as to make public action on the subject necessary. Innoculation has been practiced very extensively, but an inoculated animal is as dangerous to a flock of healthy sheep as one which has the disease from natural causes; so that the trouble has often been much aggravated by this means.

THE AGRICULTURAL FAIRS.

A FEW of our Agricultural Societies, on account of the excited condition of the country, decided to hold no exhibitions this year. The great majority of them, however, held their Fairs as usual, and, as a general thing, the wisdom of this policy was clearly shown by the result. So far as we have seen and heard, the attendance, though not as large as in more peaceful times, was fully equal to last year.

Great honor is due to the enterprising officers of these societies, who, in the midst of discouragements and uncertainties, are found unwilling to abandon these annual gatherings, or to give up ought which experience has proved favorable to agricultural improvement.

If there ever was a time in our history when all classes were interested in the advancement of agriculture and kindred pursuits, that time is now; and we cannot but rejoice that there are found so many men of intelligence who are willing to use all their influence for the promotion of this important object.

VERMONT STATE FAIR.

The first State Fair of the season was that of Vermont, held at Rutland September 9-12. The Society was organized in 1851, and has done much towards improving the breeds of horses and sheep, for which the State is so justly celebrated. In these two classes of animals the show this year was, as usual, excellent. The other departments of the Fair did little credit to the farmers of the State. HORACE GREELEY delivered the address. The attendance was large, and the Fair, in a pecuniary point of view, quite a success.

During the first day of the Fair a "Wool Growers' Convention" was held, at which the Secretary of the State Society, DANIEL NEEDHAM, delivered an interesting address. He thought there was no danger of getting too many sheep, as we annually import, as wool or woollen fabrics, the product of thirteen millions of sheep. There was a favorable prospect of high prices for wool for the next few years. The supply of cotton was cut off, and the demand for wool for army purposes was very large. The farmers of Vermont thought the Spanish Merino best suited to their climate and mountain pastures. It seemed to be the opinion of many of the wool-growers present that it was better to shear sheep without washing.

THE OHIO STATE FAIR

Was held at Cleveland September 16-20. Great fears were entertained for its success. The week

previous the rebels threatened to attack Cincinnati, and the whole State was thrown into great excitement. Still, the Fair was held, and proved a success. Over thirty thousand people were on the grounds during Thursday. The display of articles was highly creditable to the State. In the sheep department especially the show was large and excellent. A Vermont breeder informs us that he has never seen, at any Fair, a better display of fine-wooled sheep. There were eleven exhibitors from Vermont, and many sales were effected at good prices.

Some pens of Cashmere goats, exhibited by S. S. WILLIAMS, of Jonesville, attracted much attention. It is said that these animals shear from three to five pounds per head, and the wool sells for eight dollars per pound!

THE MICHIGAN STATE FAIR,

Held at Detroit September 23-26, was in many respects quite successful. Here, as in Ohio, the entries of stock were not as large as usual, but the quality was superior. PARSON BROWNLOW delivered the address on Thursday, and the rush of people to the grounds was unprecedented in the annals of the Society. The total receipts were \$2,656 *more* than last year, and the Society is again in a flourishing and prosperous condition.

THE PROVINCIAL FAIR OF CANADA WEST

Was held at Toronto September 23-26. It was, in many respects, the best Fair we ever attended on this side of the Atlantic. The show of cattle and sheep was truly magnificent. There were *three hundred and sixty-three* different exhibitors in the stock department alone! The number of entries in this department foots up *eighteen hundred and fourteen!*

The Society published this year for the first time a catalogue of the entries of stock. It made a handsome volume of one hundred pages. It was a great convenience both to visitors and exhibitors, and if possible we hope the plan will be adopted by our State Societies.

Let us take a glance at the Fair—it must be but a glance; and first for the Shorthorns, or, as they are still called in Canada, the Durhams. What a grand display! There are one hundred and twenty-two entries! The Durhams are evidently the favorite breed in Canada. FRED. W. STONE, Esq., President of the Association, exhibits, as usual, some splendid animals. He has taken the sweepstakes for the best herd of Durhams. JOHN SNELL, GEO. MILLER, and other prominent breeders, are also well represented.

In the Devon class there are ninety-five entries. DANIEL TYE, of Wilnot, shows twenty-one head, and there are many other large exhibitors. The Devons are looking up.

There are but twenty-six entries of Herefords, but the quality of the stock is unsurpassed. F. W. STONE and J. McMICKING are the only exhibitors.

There is a large display of Ayrshires—P. R. WRIGHT, of Coburg, and many others exhibiting superior animals.

Here we are among the black, saggy, hornless Galloways. This hardy breed is evidently increasing in popular favor. There are some animals shown that are models of symmetry.

But we must hasten to the sheep. There is a noble display—the large so-called Leicesters being most popular. There is a fair show of Cotswolds. The South-Downs, too, are out in full force. Look at this fine pen belonging to Mr. SPENCER, of Whitby, and then let us try to get into the Crystal Palace.

It is a fine, commodious building, and is well filled with fruit, flowers, grain, domestic manufactures, &c., &c. We are always interested in the show of wheat. The Canadian farmers beat us altogether in this particular—at least in exhibiting. Perhaps our farmers can and do raise as good wheat, but it seldom finds its way to our Fairs. The wheat in Canada this season is not quite equal to former years; but nevertheless there is a fine show. Here is something new. A bunch of wheat and straw labelled "Thomas' Improved." We can not find out who is the exhibitor. It is a short, plump ear, with a white chaff. We will take a sketch of it, and perhaps some one will tell us what are its improved qualities. We wish the plan of exhibiting wheat attached to the straw was more general. Blue-stem and Scules' seem to be the favorite varieties of winter wheat.

The show of fruit is excellent. Canada is rapidly improving in horticulture. Here are some cauliflowers that are two feet in diameter, and as white, handsome, solid and well-formed as could be desired. Hop culture seems to be on the increase, and here, too, is a fair lot of tobacco

leaves. As usual, there is a splendid show of roots, potatoes, &c.

There is a good exhibition of agricultural implements, machinery, &c., but we see little that is new.

Of horses there is said to be a grand display, but we have not time to examine them. We must not leave, however, without expressing our obligations to Prof. BUCKLAND, FRED. W. STONE, Esq., HUGH C. THOMSON, Esq., and other officers of the Association for their polite attentions.

ST. LAWRENCE COUNTY (N. Y.) FAIR.

St. Lawrence county has one of the most enterprising Agricultural Societies in the State. It owns extensive, commodious and picturesque grounds, near the beautiful village of Canton. It is highly favored in possessing an active, energetic and intelligent Secretary. Such a man as T. L. HARISON would make any Society prosperous. This year the weather was unfavorable, and the entries were not as large as they otherwise would have been, but as it was the display was highly creditable. The attendance was large, including many from adjoining counties.

THE NEW YORK STATE FAIR

Was held at Rochester September 30 and October 1-3. The weather proved exceedingly unfavorable Tuesday and Wednesday were settled rainy days. The prospects of the Society were gloomy enough. On Thursday the clouds cleared away and the sun came out timidly, and there was a good old-fashioned rush to the Fair Grounds. It was clear that if the weather had been propitious the Fair at Rochester would have been one of the best ever held in the State. As it was, the receipts were several thousand dollars better than last year.

The exhibition of stock was not large, but of superior excellence. JAMES O. SHELDON, A. B. CONGER and other well-known breeders, showed some fine Shorthorns. There was also a good show of Devons, Herefords, Ayrshires and Alderneys, though nothing that deserves special notice.

Sheep were out in full force, both fine-wooled and mutton sheep. Among the latter the South-Down of JAMES O. SHELDON and SAMUEL THORNE were conspicuous. P. LORILLARD showed some of his Shropshire and Hampshire Downs, as also did Mr. MEEK, of Canandaigua. JOHN SNELL and GEORGE MILLER, from Canada, were on hand with their magnificent Cotswolds and Leicesters. Among the fine-wools the Spanish Merinos of GEORGE CAMPBELL, of Vermont, were conspicuous, and many of the fine flocks of this State were also well



represented. Mr. CHAMBERLAIN showed some excellent Silesians.

There were some very large "Cheshire" hogs which attracted notice, and one monstrous Yorkshire that was the "observed of all observers." He weighed eight hundred pounds! There were a few good Sussex and Essex pigs; but on the whole the show was not equal to that of last year. The show of poultry was excellent.

Of implements and machines there was a good display, but we have not time this month to particularize.

The fruits and flowers constituted, as usual, one of the attractive features of the Fair. The arrangement of Floral Hall, under the direction of Mr. JAMES VICK, was much and justly admired. The display of fruits has never been excelled.

The attendance at the evening meetings was large, and the discussions interesting and instructive. We give a report of them on another page.

MAPES AND HIS MANURES.

THE *Working Farmer* for September contains an article from the pen of Mr. J. J. MAPES headed "Facts Concerning Mapes' Phosphates," in which Prof. S. W. JOHNSON and PORTER, of Yale College, Dr. EVAN PUGH, President of the Pennsylvania Agricultural College, Messrs. LUTHER TUCKER & SON, of the *Country Gentleman*, Mr. SANFORD HOWARD, of the *Boston Cultivator*, Mr. A. P. CUMINGS, of the *New York Observer*, and JOSEPH HARRIS, of the *Genesee Farmer*, are accused of a concerted effort to injure the sale of the artificial manures manufactured by the said MAPES.

It is true that all the parties named have endeavored to convince their readers that MAPES' manures are very inferior articles, but there has been no "concerted action," and none of them, so far as we know, have ever done him injustice. True, they have said things that are not favorable to him or his manures; but he, and not they, is to blame for that. So far as the writer is concerned, if Mr. MAPES thinks we have done him injustice, and will state it in reasonably few words, we shall be happy to lay what he has to say before our readers.

Our first allusion to his manures was in the *Genesee Farmer* for September, 1852, page 269. A gentleman in New York sent us a sample of "Mapes' Improved Superphosphate of Lime," and we simply said that it was a poorly *manufactured* article—that it looked as though the animal charcoal from which it was made had not been ground

previous to the addition of the sulphuric acid. We had had far more experience in the manufacture of superphosphate than Mr. MAPES, and knew that it was impossible to make a good article without grinding the animal charcoal or calcined bones. Our remarks were not unfriendly. It was simply a statement of a fact which Mr. MAPES, or any other manufacturer, might have profited by. We were personally unacquainted with Mr. M., and had not the slightest thought of saying anything to injure his feelings, his reputation or his business.

Our next allusion to his manure was to copy the result of an analysis of it made by Dr. ANTISELL, and to say if this analysis was correct the manure was not worth half what was charged for it. This was in the *Genesee Farmer* for December, 1852, page 367. MAPES replied to this by saying that the manure analyzed by Dr. ANTISELL was not a fair sample of his superphosphate.

In an article written for the *Country Gentleman* of March 3, 1853, Prof. S. W. JOHNSON gave the result of a careful analysis of MAPES' manure. We copied the article into the *Genesee Farmer* for April, 1853. Mr. MAPES savagely attacked Prof. JOHNSON for making and publishing this analysis. He declared it erroneous on the face of it. The ground of his charge was this: Prof. JOHNSON found in MAPES' superphosphate some undecomposed phosphate of lime, and also some *free* sulphuric acid. This Mr. MAPES pronounced a "chemical impossibility." The object of Mr. MAPES, of course, was to show that if Prof. JOHNSON had made one mistake he might have made others, and that therefore the analysis was unreliable.

In the mean time Prof. JOHNSON had gone to Europe, and as he was not here to vindicate himself, even had he thought it worth while, we stated in the *Genesee Farmer* for September, 1853, page 281, that if MAPES' manure was made from unground animal charcoal, it was not only quite possible, but also highly probable, for it to contain undecomposed phosphate and free sulphuric acid—from the fact that the acid could not get at the phosphate in the hard lumps of the burnt bones. Dr. ANTISELL's previous analysis showed that not half the animal charcoal had been acted on by the sulphuric acid.

In October, 1853, we were on a visit to Prof. WARD, of Newark, N. J., who resides near MAPES' factory. His son asked us if we would like to go over it. We assented, and he kindly went with us to the factory. We there found from conversa-

tion with the men in charge that the animal charcoal was *not ground previous to its mixture with the acid.*

In December, 1853, in reply to an article of MAPES' attacking Prof. JOHNSON, we mentioned this fact of his not grinding the animal charcoal as proving that there would be undecomposed phosphate in his manure. There was no way of meeting this argument, except to show that he *did* grind his animal charcoal.

In the March number of the *Working Farmer* Mr. MAPES published an affidavit signed by *twenty* men who worked in his factory to prove that he *did* grind the animal charcoal before the sulphuric acid was added. They also swore that they believed "Mr. HARRIS never passed through the factory!"

The fact that our article appeared in December, and that the affidavit was not taken until February 2, led us to believe that Mr. MAPES had *changed his process of manufacture* after the appearance of our article. We tried to ascertain this fact; but all access to the factory was denied. We then, in the garb of an Irishman, visited the factory in disguise, and there learned that MAPES had put in a Bogartus' Mill, and otherwise changed his process of manufacture. *After this was done* he took the affidavit of his men for the purpose of showing that our statement in regard to his mode of manufacture was not true!

This is the chief charge he brings against us. In the affidavit the men swore that they believed "HARRIS never passed through the factory." Now Mr. MAPES says of this same visit: "Mr. HARRIS visited the factory and *was known* and politely treated while there." The fact is, the men did not know what they were swearing to. They were ignorant German and Irish laborers, and did not understand the document which their unscrupulous employer had drawn up.

Mr. MAPES says: "We placed this affidavit in our desk, simply stating in the *Working Farmer* that we had the affidavit of the Superintendent and workmen, contradicting flatly every assertion of HARRIS. *At last*, however, being goaded by *continuous* false statements in the *Albany Cultivator*, *Country Gentleman* and *Genesee Farmer*, we published this affidavit, which clearly stripped HARRIS of any character he might have previously claimed."

Now this is all false, on the face of it. The affidavit is dated, "Improved Superphosphate of Lime Factory, near Newark, N. J., February 2, 1854," and was published in the very next number of the

Working Farmer. The affidavit was taken as soon as MAPES had changed his process, and it was published in the very first number of his paper issued after it was taken!

"CHILIAN GUANO FRAUD."

In 1855 there appeared in New York, Boston, Baltimore and Petersburg an article purporting to be "Chilian Guano." Knowing that this best of all guanos had been exhausted for some years, and ascertaining that MAPES was connected with it, we visited Newark and there found that it was *manufactured in Mapes' factory*. We took a sample of this so-called guano, made a careful analysis of it, and found that it was almost worthless.

Dr. HAYES had made an analysis of this stuff, and in his report spoke of it as a guano "said to come from the coast of Chili." Below this was the following from Mr. MAPES:

"NEWARK, N. J., February 23, 1855.

"I have examined the report of Dr. HAYES, as also the guano referred to, and fully concur in his favorable opinions of its merits.

J. J. MAPES,

"Professor of Agricultural Chemistry."

Now let it be borne in mind that this so-called "Chilian Guano," which, in the language of Dr. HAYES, was "said to come from the coast of Chili," was *manufactured in Mapes' factory!* It was the greatest cheat ever attempted to be palmed off on the agricultural community. It had been sent to New York, Boston, Baltimore and Petersburg, but our *expose* in the *Country Gentleman* put farmers on their guard, and it was withdrawn from market.

Mr. MAPES now admits that he manufactured this article, but says he had no interest in its sale. Of this we know nothing. He endorsed Dr. HAYES' statement that it came "from the coast of Chili," while he knew it was a compound of sugar-house scum and Mexican guano, mixed and labelled "Chilian Guano" in his own factory!

SURFACE APPLICATION OF MANURE.—From the result of various trials, Professor Voelcker seems to lean to the opinion that the spreading of farm-yard compost on the surface of the soil, for even a considerable period before it is plowed in, is by no means so injurious a practice as we have hitherto been led to suppose. He says, "that on all soils with a moderate proportion of clay, no fear need be entertained of valuable fertilizing substances becoming wasted, if the manure cannot be plowed in at once. Fresh, and even well-rotted dung, contains very little free ammonia; and since active fermentation, and with it the further evolution of free ammonia, is stopped by spreading out the manure on the field, valuable manuring matters cannot escape into the air by adopting this plan."

EVENING DISCUSSIONS AT THE N. Y. STATE FAIR.

DURING the New York State Fair, held in this city, meetings for discussions were held in the evening, which were well attended, and elicited much interesting information. The meetings were ably presided over by the Hon. A. B. CONGER, of Rockland county. On Tuesday evening the subject selected was:

INSECTS INJURIOUS TO AGRICULTURE.

Dr. FITCH, the learned Entomologist of the Society, opened the discussion with some remarks on the wheat midge and the grain aphid. The latter appeared for the first time in considerable numbers two years since in the New England States, and in the eastern portion of New York and parts of Pennsylvania, Canada, &c. This year it moved west in countless myriads, and spread all over Western New York, Canada West, and portions of Ohio, Michigan and Pennsylvania, while at the East it had somewhat abated. It sucks out the juices from the leaves and straw of wheat, barley, oats, &c., and when the heads appear they leave the other parts of the plant to fasten on the ears, sucking out the rich juices and causing the grain to shrivel. Dr. F. thought the grain aphid would not prove a permanent pest. Lady-bugs and other insects destroyed them, and he thought they would soon pass away. The wheat-midge, on the other hand, was more likely to stay with us. If the latter part of June is wet, the midge would prove injurious; but if dry, it could do but little damage, except on low lands.

On Wednesday evening the subject selected for discussion was:

FARM DRAINAGE.

The Hon. GEO. GEDDES, of Onondaga county, opened the discussion, presenting many interesting facts. About one million gallons of water fall on an acre of land each year in this section. The larger portion of this water is carried off by evaporation. The water in evaporating cools the land, and hence wet land is colder than drained land by several degrees, because the evaporation is greater.

The Hon. J. C. PETERS, of Genesee county, thought the products of the State could be increased one-third by thorough drainage.

Mr. FOSTER, of Seneca county, in answer to a question, described the draining operation of his neighbor, JOHN JOHNSTON. He digs the drains two and a-half feet deep, and about two rods apart. The cost of such underdraining is about \$20 per acre. He preferred tiles to stone drains. Would

use four-inch tiles in the main drains, and two inch in the lateral drains.

T. C. PETERS thought there were few localities in the State where underdraining would not be profitable. Up to midsummer water will stand in the post-holes—and this proved that the land needed draining. On such land the grass is coarse. Clover kills out, and frost appears early in the fall.

Mr. FAILE, of Westchester county, had underdrained some worn out land at an expense of \$30 an acre. The land had risen in value from \$0 to \$200 per acre.

HUGH T. BROOKS, of Wyoming, thought underdraining profitable on some soils and in certain sections; but on many farms it would not pay. The land would not sell after it was drained, for as much as had been expended on it in digging drains. He thought three-fourths of the land in the United States did not need draining.

J. J. THOMAS, of Cayuga county, had laid over fifteen miles of drains, and he knew that \$100 expended in underdraining had benefitted him \$500. His drains cost him about \$30 per acre. In three years the increased crops will pay the expense of underdraining. Digs them about three feet deep, and about ten rods apart.

Mr. BAKER, of Steuben county, had increased the value of his land from \$45 to \$125 per acre. Draining pays on grass land and for sheep. The quality and quantity of the grass is greatly increased, and the sheep are healthier.

Mr. BRAGDON, of Chicago, spoke of the benefit of mole-draining on the prairies. Had seen corn killed on undrained land; but on an adjoining field which had been mole-drained, it was entirely unhurt. Knows of mole-drains that were made eight years ago, and which are still good.

On Thursday evening the subject of Fences was discussed.

T. C. PETERS estimated the cost of highway fences in New York State at eleven million dollars. The cost of all the fences in the State, at \$1 per rod, amounts to \$144,000,000. A farm of 100 acres, divided into ten-acre lots, would require 1,600 rods of fence. But as these are on both sides, we may reckon 800 rods to a hundred acre farm. This, at a dollar per rod, would be \$8 per acre. The interest on this is 56 cents per acre, and another 56 cents are required to keep them in repair. So that our fences cost \$1.12 per acre.

LEWIS F. ALLEN thought fences could not be greatly diminished unless the practice of soiling cattle was adopted.

President CORNELL, who had just returned from England, thought hedges were too expensive, and occupied too much ground to be profitably adopted in this country. On the prairies, where shelter is desired, they might be useful; but here they were not profitable. In England premiums were offered for the eradication of hedges. On one farm forty-five acres had been added to cultivation by removing the hedges. In France and Belgium there are few fences. He was determined to lessen the number of fences on his own farm, and so said many other gentlemen present.

A GOOD STORY OF A MUSICAL HORSE.

WHEN I was a boy, says Dr. JACKSON, my father owned a sorrel mare, which was called "Tib." She was ordinarily sluggish, but possessed speed and great power. She was never frightened at any thing, and, aside from her laziness, was a good beast, except on particular occasions, when she would, without any apparent cause, refuse to go. For a long time she was subject to the usual treatment of balky animals—severe whipping, pounding, torturing, &c. But my father and the hired man gave it up as a bad course, and she was released from this harassment. A close observation of her tantrums led me to the conclusion that she was subject to paroxysms of the nervous system, growing out of electrical changes of the atmosphere. She was always true to draw or travel in bright, clear, blue sky, spring or summer weather; and for the dozen years that we owned her, we were never troubled with her in a cold, frosty, still winter's day. But on a summer's day, when the electric fluid passed rapidly from the earth's surface, and dyspeptics would look like committing suicide, and rheumatics would predict a change of atmosphere, when thunder-caps, white and gorgeous as an East Indian palace, lifted their heads to the northwest, betokening the clap and flash of coming storm, then look out for old "Tib." She would suddenly stop in the furrow, in the harvest-field or highway, and pitchfork-tines or apple-tree clubs, or bundles of fired straw under her belly, could not start her. Like a sentinel at his post, she was deaf to all urgencies and appeals save one. That would start her after a while. The same result would be witnessed in a winter's day, when the air was from the south, and thawing. So she was always worked with these reservations; for she was not always reliable. After we had owned her about eight years, my father hired a man by the name of JONAS

HART. He was a pious man, and liked above all things to sing. One bright August morning we were drawing in wheat, and old "Tib" had been drafted into harness. She had worked well until about four o'clock in the afternoon, when suddenly, as we were loading, there came a clap of thunder from an almost "clear sky" on our ears, and we saw in the west a cloud "a little bigger than a man's hand," portending rain. We were not far from the barn, and hoping to get loaded and into the barn before the rain reached us, the sheaves were thrown on by two men, and loaded by HART with great dexterity. Our hopes were quite sanguine that "Tib" would be reasonable this time: first, because she had had thunder-shower experience enough to know that it was not pleasing to her, nor at all obliging to those employing her; second, because she was "homeward bound," and a little effort would put us all under dry cover. She made no hostile declarations until the rack was loaded, when, at the usual word, she refused to budge one inch. The men proposed to pound her, but my father forbade, and suggested to HART to sing. He had a full, manly, melodious voice, which rang from his throat in tones sweet and beautiful; and he knew all the ballads from "Robin Hood" to "Yankee Doodle," and the Methodist hymns from "Blow the Trumpet" to "How Happy are They." 'Twas a scene for TURNER's pencil. In the west the heavens were black as Erebus. In the east lay thunder-caps as white as snow, like Pelion upon Ossa. North and south the rain had flanked us like the wings of an army. Here and there fell a big rain-drop, harbinger of more, while around the load stood the hired men, aching to pound old "Tib" into mince-meat. HART was on the load. "Sing," said my father. HART began and sung a hymn, every two lines of which was a chorus of

Blow ye the trumpet! Blow!
Sing glory! Hallelujah!

and his eye dilated, and his breast heaved, and he forgot that behind him, but a little way off, were thunder and lightning, rightly expended, to "blow" up half of creation; and that before him was a crazy old mare, within ten rods of a good barn, too mad, or too upset, however, to make her way to it. He thought of his mission, which was to sing God's praise 'mid flashing fire and thunder-stroke, and he filled his mission full.

"Sing away!" cried my father, "sing away, HART; the old hag is relenting; I see it in her eye; and the tip of her ear is playing to your music like the fingers of a maiden to her guitar.

She likes the "Hallelujah" strain. It soothes her brain, which seethes under this thunder like lead in a red-hot cauldron. Ha! ha! give her the rein; she'll go—hurrah! we're in time—hurrah! there has been no such singing since TIMOTHY sang at the feast of ALEXANDER.

We had made a discovery. HART's voice would control the old mare in her tantrums like the lyre of Orpheus the trees; and while he lived with my father, a Methodist hymn would always start her. She was a Methodist from instinct, and HART declared that "Tib" knew a Methodist from a Presbyterian hymn instantler.

NOTES FROM CANADA WEST.

EDS. GENESEE FARMER:—For the last five or six years I have furnished you with "notes" on the weather, crops, &c.—embracing a considerable portion of the central counties of this peninsula—from actual observation; but this summer I have been too busy to leave the farm but little—consequently my knowledge of the appearance of crops when growing is very limited, except through report. My last "notes," dated the middle of July and published in the August number, was a correct picture of the *then* state of affairs in this immediate neighborhood, and was sent to you as such, stating that it was not true of many localities—only a few miles on either side of us, where they had been blessed with copious showers, thus showing how very partial the rain had been.

I find by the *Farmer* for September that the season has been more favorable in Niagara county, and because my description of the state of affairs here did not agree with things there—a distance of ninety miles away—your correspondent, in an ungentlemanly manner, tries to throw doubts on its correctness. I have seen some truly deplorable accounts from some of our northern counties, where the frost had cut off nearly every green plant, and the drouth setting in immediately there was no prospect before them but starvation, and in some places they even had to cut down trees to feed their cattle on the leaves. Now, though neither this or your correspondent's glowing picture is true of this locality, I should certainly be an ignoramus to doubt the truth of either without some tangible evidence of its being incorrect.

Since the middle of July we have had all the rain we need, and the late crops will be an average yield. Clover has been cut the second time, giving about fifteen hundred pounds per acre. Early sown wheat suffered some from midge, and, in my opinion, some from the aphid; for it is badly shrunken, and, as far as I have seen threshed, yields only from ten to fourteen bushels per acre. The winter wheat yields from thirty to forty bushels per acre, but very few ventured to sow any last year. This fall a large breadth of land will be sown. Oats are unusually light—not half filled. We attribute it to the aphid, as the oats were literally covered with them. Potatoes are excellent in quality and enormous in size; but the indications of disease are pretty general in the appearance of the stalks.

The rain has had a marked effect on apples. What appeared to be a thin crop in July, shows to be sufficient for the trees now they have their growth. Carrots were a failure then, and were generally plowed up; therefore we can not note any improvement. There will be a fair crop of turnips, though late. Hungarian grass has done well, and will become a favorite crop; still, I like vetches better. Mine scarcely covered the ground in July, and I am safe in saying that by the 1st of September there was more than two and a half tons per acre of dry hay—equal to the best timothy for any purpose.

Since writing the foregoing I have obtained the following authentic particulars from those who have threshed their grain: One neighbor has thirty bushels of fall wheat per acre, and another forty bushels. These are nearly all who have any near here. One farmer, five miles from this place, threshed eighteen acres of spring wheat, and got only one hundred and fifty bushels of inferior wheat. My nearest neighbor has ten bushels of wheat and twenty bushels of oats per acre. My own gives fourteen bushels of wheat and thirty-three bushels of oats per acre. From this we still believe that the season has been unusually good for winter and very, very bad for spring wheat.

Woodstock, Sept. 15, 1862.

R. W. S.

AMERICAN FORKS AND HOES.—For lightness and finish, combined with strength and durability, American forks and hoes are superior to all others. The English, French and German forks are rough, heavy, clumsy things, that make a man's back ache to look at them, much less to handle and use. A week or two ago we saw, at Toronto, some three and four-tined forks, recently imported from England, which had iron enough in one of them to make a dozen American forks! The editor of the *Wisconsin Farmer*, who has just returned from a visit to the Great International Exhibition, says:

"Among the minor implements of agriculture we were both surprised and gratified to find a collection of American forks and hoes. The exhibitor was a sensible English dealer, who, discovering the superiority of this class of American implements as compared with articles of the same description manufactured in his own country, has for years been importing and selling them to his customers. On being asked why English manufacturers did not make them, he replied: 'We can't do it. Have been trying ever since the Great Exhibition of 1851, but somehow don't succeed. It is a mortifying admission to make, but it is nevertheless true that you Yankees have a knack of doing some things which we have not the skill to imitate.'"

Hallet's PEDIGREE WHEAT is mentioned several times by the *Gardener's Chronicle* of September 13. It says: "We feel justified in calling the attention of agriculturists to this new variety, as an instance in which unusual care, attention and perseverance are being successfully directed to the improvement of the wheat plant."

WINTERING BEES.

THIS is the most difficult of all bee-management; and no rules can be laid down that will prove entirely successful in all cases. I have tried the most of the systems in practice, and will now briefly give my opinions, after twenty years' trial.

I object to wintering in cellars, for the reason that they are too damp, and cause the combs to mold and the bees to become unhealthy.

Burying bees in the ground is liable to the same objections.

Placing the hives in a room of one's dwelling is dangerous, if any light is admitted at the windows, as the bees, if not shut in, will leave their hives, fly to the light and perish. If the passage-ways of the hives are closed, they will, in mild weather, gather around the closed passages, and there die in large numbers in striving to escape.

Wintering in bee-houses made expressly for the purpose, does very well, if the walls are so made as to prevent the sudden changes of weather from cold to warm from affecting the temperature of the atmosphere within in a great degree. There is no danger from the cold, but only from the mild and sometimes quite warm weather of January, February and March.

If such buildings are constructed of wood, there should be a double wall, and filled in between with sawdust. If made of brick, there ought to be an open space between the two walls, and left open, by which means the temperature of the interior is generally uniform.

Bees, perhaps, winter as well in "clamps" as in any other way, made as follows: First lay down two scantlings, 3 x 4 or less, parallel to each other, upon which the hives are set, about December 1st, in a row, and as close together as may be. The row of hives may be extended 10, 20 or 50 feet. On either side of the hives are to be placed boards, cut to the right length, so as to form a steep roof, and battened over the cracks so as to make it water-tight. Now, against this roof, on both sides, the earth is to be thrown up, so as to cover the boards about a foot thick near the ground, and tapering off to about six inches at or near the ridge. A couple of narrow boards may be nailed together at the edges, to form a cap, and thus prevent any rain from leaking in at the ridge. The ends are to be closed on the same principle, as far as practicable, so that there shall be no light entering the clamp. At each end, near the ground, an opening must be made large enough to admit a steam-pipe, or wooden box five or six inches square, open at both ends, to admit a current of air to pass through the clamp, which is very essential to keep the bees healthy. Over the ends of these pipes or boxes should be placed wire-cloth, to prevent rats and mice from entering and destroying the honey and bees. It will be necessary to see that the flow of air through these passages is not obstructed by snow during the winter; and they should be so arranged as to admit little or no light to the bees.

I have generally adopted a somewhat different system, though about the same in principle, which I fully explained in the *Farmer* last season; yet I do not think it any better than the "clamp" plan, but merely requires a little less labor.

Some people excavate the ground a foot or more, where it is dry, and thus have less earth to dig from the sides. I recommend that plan, when there is no danger of water standing in the excavations.

Clinton, N. Y.

T. B. MINER.

ROADS UP AND DOWN HILL.

WHEN the roads of a large part of the newer portions of the Northern States were laid out, the surveyors aimed strenuously to have them in a vertical plane, instead of a horizontal one—that is, straight, without deviating to the right or left, at the expense of climbing up and down hills indefinitely. We could point out many instances in proof of this peculiar kind of wisdom,—where the road would be little or no longer, if it had bent to the right or left, to avoid a hill—on the same principle that the bail of a kettle is of no greater length when lying down horizontally than when standing erect. On a good hard earth road, a team will draw twenty-five times as much as it could lift vertically; and on a smooth, hard, broken-stone road, fifty or sixty times as much; but as soon as the horizontal is changed to a steep ascent, the force required to draw the load becomes enormously increased. We have seen hills fifty to a hundred feet high, that might have been as well avoided as not, had it not been for the fact, that some neighboring farmer did not want the boundary of his cornfield made crooked; and so, the road commissioner, for fear of losing his vote, ordered a hundred other farmers to ascend that hill, each one hundred times a year; requiring an amount of strength, annually, *enough to raise ten thousand tons one hundred feet high*, if each team drew a ton load—more than enough for all the increased expense of making the road on a level piece of ground. Some of our readers may remember the turnpike road west from Boston, built on the erroneous supposition that a road may be effectively shorter by passing straight on, so far as deviating to the right or left is concerned, but continually up and down hill. Nobody would travel this costly road—it was too hard for horses—and the vast expenditure for forty costly miles was entirely thrown away, and individuals ruined. Sometimes cattle know more than men—we lately witnessed a clear example to prove it. The owner of a snug little farm constructed a smooth hard farm road from his barn to the pasture, rising in one place in an ascent of several feet, and descending again accordingly. But the cows would not walk up the smooth road over the knoll, but preferred making a path for themselves on a level, on the inclined side of the knoll—preferring the rough but level path, to "boosting" their eight hundred pound carcasses up the hill and down. When will some road commissioners learn to be as wise?—*Country Gentleman*.

HOW TO HARVEST CARROTS.—Send a man with a sharp hoe through the rows, to cut off the tops. Then, beginning on one side of the patch with a plow, cut a deep furrow close to the first row of carrots; a second furrow will completely unearth them. Two boys with baskets will soon fill a wagon. When the crop is harvested, the land will be already fall-plowed.

SPIRIT OF THE AGRICULTURAL PRESS.

TO PREVENT HORSES KICKING IN HARNESS.—A correspondent of the *Irish Farmers' Gazette* says:—"Attach a stout piece of ash stick to the collar at the breast; fix it under the horse's chin, so that he cannot bend his head toward his breast, and he cannot kick high enough to injure car, harness or himself; if a good horse, and worth the trouble, a bit of bright steel may be fixed on his collar, with a claw to catch him under the chin; this will answer the purpose, and look well. If a mare, part her and turn her to the stud; her foals if colts may not kick if well brought up. In fillies, I fear no matter what education they get, they will have the 'kick in them.' Sometimes mares kick from ticklishness; it is a ticklish thing to deal with them, and I fear their daughters will be ticklish. Kicking, I am satisfied, is hereditary 'in the female line.' I had a mare that was dangerous to look at, she had such an ugly use of her hind legs, and by buckling a stick under her chin, fastened to the collar in the way I have described, I defied her, and I defy any horse to kick so as to injure the vehicle or himself. This is certainly better than tying up one fore leg, as a horse could not trot upon three. I had two fillies out of this mare, and they were both kickers; this is only one instance; I know of many instances of kicking being hereditary."

PRESERVING PLANTS DURING WINTER.—Unless you have a greenhouse plants in pots are a nuisance in winter. A correspondent of the *London Cottage Gardener* says he has kept them as follows for the last two winters, (and the winter of 1860-61, in England, was almost as severe as in this country):

"To avoid trouble, I made several boxes suitable for the window; each box the depth of an ordinary flower-pot, about eight inches or nine inches wide, and sixteen inches or seventeen inches long, well supplied at the bottom with holes, and nicely painted. A slight layer of broken crocks was then placed at the bottom of each box, and covered with coarse fibre torn from a cocoa-nut husk to prevent the mould escaping. I then turned each plant out of its pot, squaring the ball of earth a little, without disturbing the plants. They were then placed in the boxes side by side, each box holding about eight plants (eight troubles in one), and the spaces between, if any, were then filled with the spare mould. Geraniums, Calceolarias, Fuchsias, &c., were each in a box by themselves. I then kept them as quiet as I could; they were very rarely watered, did not grow tanky, and were preserved healthy to the spring. They are now mostly bedded-out, and are finer plants and more profuse in flowers than any I have purchased this year. In fine weather they had plenty of air in the daytime. They were in a back kitchen during the greater part of the winter, only being removed into a dwelling-room when the weather was very severe, and then placed as far off the fire as possible.

"Be sparing with the water—comparative dryness is essential. The Calceolarias will ask plainly when they want moisture."

MIXING VARIETIES OF CORN.—A correspondent of the *Boston Cultivator* says: "A few years ago I planted some sweet corn—Stowell's evergreen, so called—near some of the smallest variety of white parching corn. At harvest, I found the two varieties, distinctly marked, among the ears of both sorts. The next year, I selected some of the most unmixed parching corn, and planted it. At harvest it was more than double the size of the parching corn originally planted, and had none of the shriveled character of the sweet corn. The third year's planting produced a variety of whitish, middling-early corn, more than double the size of the parching corn first planted."

FATTENING SWINE.—The *Boston Cultivator* has a sensible and timely article on this subject, from which we make a few extracts:

"On every hand there are articles which may be made useful in fattening swine, if taken in season, but which, if not so taken, will be totally lost. Of these, we may mention summer squashes, summer and autumn apples, and "wind-falls" of late kinds. Later in the season, pumpkins may be used to advantage.

"Summer squashes, if cooked, will fatten hogs very fast. Many people who have used them for this purpose consider them, when cooked, as profitable a crop for summer and early autumn feeding as can be grown.

"In regard to apples, much has been said of their value as food for animals, especially for fattening swine. Various experiments indicate that when cooked they are worth nearly or quite as much as potatoes for this purpose. Hogs will eat ripe, palatable apples raw, in considerable quantities; but they will not eat those which are hard—especially acid ones—to much extent. It is somewhat so with the human family. If we eat apples or pears raw, we want them fully ripe and mellow; but for baking or cooking in other ways we frequently use those which are not fully ripe. Hence, apples which are too hard to be fed to swine raw, may be given to them in a cooked state with advantage. It would probably be an object to save in this way many of the winter apples which are now falling from the trees. Most New England farmers are in the practice of cooking potatoes for hogs, and the same apparatus which is used for this purpose will answer for apples and other articles."

THE LESSONS OF THE WAR.—The *Maine Farmer* concludes an article on this subject as follows:

"When our farmers destroy one-half they raise—or what amounts to the same thing—when they only grow a poor crop with the same labor that would produce a good one—and when they waste each year more than they save, it is time that something brought them to see the necessity of a better system of husbandry. And if this war, which will eventually impose high taxes upon our farms and estates—acting very much in the same way as do the high rents of the English farms which have contributed so much to the perfection and present condition of her agriculture—accomplishes the same results, its cloud may well be said to have had a silver lining!"

We do not think the perfection of English agriculture is due to high rents, but all will admit that the war will render a better system of American agriculture absolutely essential to our national prosperity.

TO REMOVE STUMPS.—A correspondent of the *Rural Register* states that Mr. John Barnes, of Baltimore, removed a troublesome stump from near his house in the following manner: "Last fall, with an inch auger, he bored a hole in the centre of the stump, ten inches deep, and into it put about half a pound of oil of vitrol, and corked the hole up tight. This spring, the whole stump and roots, extending through all their ramifications, were so rotten that they were easily eradicated."

If true, the above would be a cheap method of removing stumps. The sulphuric acid can be bought for about five cents per pound.

FATTENING POULTRY.—The *Irish Farmers' Gazette* says to fatten turkeys, feed with barley meal mixed with water, adding a turnip with the leaves on, or fresh cabbage for them to pick at. Geese and ducks are well fattened by giving them ground buckwheat or oats mixed with well boiled potatoes, given warm, but not hot. Indian corn, well-boiled and bruised, is also an excellent food for the purpose.

SALT FOR WHEAT.—A correspondent of the *German-town Telegraph* finds great benefit from the application of a sack of salt (\$1.25) per acre, sown broadcast before drilling in the wheat. He thinks he gets 500 per cent. on the investment. The quality, as well as the quantity of the wheat is improved.

Ladies' Department.

ORIGINAL DOMESTIC RECEIPTS.

Contributed to the Genesee Farmer.

M. JASET says that an infusion of wild thyme will, in many cases of whooping-cough and affections of the air passages, remove the complaint when all other remedies fail.

PARSNEP FRITTERS.—Boil parsneps until tender; mash and season with butter, pepper and salt; make them in pats, dip them in butter, and fry in very little fat until brown: or cover them with egg and cook gently.

BREAD CAKE.—One and a half pounds of dough after it is raised, ten ounces of butter, one pound of sugar, and four eggs; add one nutmeg, half a teaspoon of soda dissolved in a cup of milk, and two tablespoons of flour.

CREAM CAKE.—Put two eggs in a coffee cup, fill the cup with cream, beat the cream and eggs together, add half a teaspoonful of soda, a coffee cup of sugar, half a coffee cup of flour and a little salt. This will make one loaf.

WASHINGTON CAKE.—One-half pound of butter, one pound of sugar, one pound of flour, one pound of stoned raisins, a wine-glass of brandy or wine, a tablespoonful of cinnamon and mace, and two teaspoonfuls of saleratus.

TO TAKE OUT FRUIT SPOTS.—Let the spotted part of the cloth imbibe a little water, without dipping, and hold the part over a lighted common brimstone match at a proper distance. The sulphurous gas which is discharged soon causes the spot to disappear.

PARSNEP OYSTERS.—To one pint of mashed parsneps add three well-beaten eggs, a tablespoonful of butter, pepper and salt to suit the taste, and sufficient flour to hold the mixture together. Make into little flat balls and fry brown in butter.

SOILED CARPETS.—When soiled, carpets may be cleaned after beating with the following mixture: Two gallons of water, with half a pound of soft soap dissolved in it, to which add four ounces of liquid ammonia; this may be rubbed on with a flannel, and the carpet then rubbed dry with a coarse cloth.

STONE CREAM.—This can be made to perfection in the following simple manner: Put a thick layer of green-gage, apricot, or any other jam, at the bottom of a glass dish; boil an ounce of isinglass in a pint of cream or milk; if for home use, sweeten to your own taste; pour it over the jam, and when cold it will be quite solid, and a deliciously sweet dish.

CORN BREAD.—One pint of flour, one pint of corn-meal, one pint of milk, a tablespoonful of butter, one egg, two heaping teaspoonfuls of cream-tartar, and one small teaspoonful of soda.

Another Way.—Take three pints of corn-meal and a quart of sour milk; stir well together, forming a thin batter; add three eggs, a little salt, and a teaspoonful of saleratus. Mix all well by a thorough stirring; then pour the batter into pans, half an inch in depth, and bake with a quick heat.

ALMOND OR COCOA-NUT CAKE.—Two coffee cups of sugar, two of flour before sifting, one teacup of butter, two tablespoonfuls of cream, and the whites only of two eggs. Add a pound of soft-shell almonds or one cocoa-nut. This will make two medium loaves, which cannot fail to be excellent. We take pleasure in giving this receipt, as it is one of the few which the most inexperienced can use with every prospect of success.

A FEW WORDS ABOUT FURS.—It is said that London is the fur mart of the world, although the climate of England is such that they are but little used. Russian sable is the most valuable of all furs, and the skins are exceedingly scarce. According to the latest statistics, but twenty-five thousand of them were produced in the Czar's dominions. The prices paid for them are enormous. In New York a set—tippet, muff and cuffs—costs from one thousand to three thousand dollars. The sable for lining one of the Emperor's cloaks, exhibited at the World's Fair in 1851, was valued at five thousand dollars. One kind of the Russian Sable is called Silver Sable, on account of the long white hairs which are conspicuously mingled with the dark-brown, which is the usual color. This commands a very high price, partly from its rarity and partly because it cannot be imitated as readily as the brown. The peculiarity of this fur is its great softness, and the length and heaviness of the hair. The Ermine has a value of its own from its delicacy and beauty, although it is not a very expensive fur—not nearly so much so as the Hudson Bay Sable, which ranks next to Russian. As the Hudson Bay Company take their skins very far north, they are often very nearly equal in elegance to the Russian, although they cost rather less than half the amount which is given for their near relation. The American Sable is taken south of the dominions of the Hudson Bay Company. It stands third in the list of furs. Next are the Mink and the Stone Martin. For the last few years fashion has given a value to the Mink which it formerly gave to the Stone Martin. It has no equal for durability, and in appearance is eminently respectable—sufficiently elegant for all ordinary purposes, and has the advantage of never looking too well for the plainest dress. It varies very much in quality. The most valuable skins have long dark hair, and are quite soft.

In selecting furs of any kind, always look for white hairs, which in the natural skins are scattered here and there, as they are your security against dyed fur. French Sable means any very inferior fur dyed to imitate a valuable one. It is very poor economy to purchase them. The Fitch and Siberian Squirrel are much used, and are just as useful for warmth and fully as durable as any other, and are much less expensive.

For sleigh robes the Black Bear is highly valued. The White Fox is very elegant, and so is the Black Fox, which is a Canadian fur, and highly valued in Europe. Raccoon skins and Muskrat are commonly used, and answer very well, but are not as comfortable as those which have longer and heavier fur. The old Buffalo robe, which formerly stood so high, has lost its place, and is almost entirely discarded; but it certainly had merits of its own, which its more showy successors have not attained.

Young People's Page.

GRAMMAR IN RHYME.

1. Three little words you often see,
Are Articles *a, an and the*.
2. A Noun's the name of any thing.
As *school or garden, hoop or swing*.
3. Adjectives the kind of Noun,
As *great, small, pretty, white or brown*.
4. Instead of Nouns the Pronouns stand—
Her head, his face, your arm, my hand.
5. Verbs tell something to be done—
To *read, count, sing, laugh, jump or run*;
6. How things are done the Adverbs tell,
As *slowly, quickly, ill or well*;
7. Conjunctions join the words together—
As *men and women, wind or weather*.
8. The Preposition stands before
A Noun, as *in or through* a door.
9. The Interjection shows surprise,
As *oh! how pretty—ah! how wise*.
The whole are called Nine Parts of Speech
Which reading, writing, speaking teach.

THE ELEPHANT THAT LOVED TO BE FED.—A sentinel belonging to the menagerie at Paris, anxious to discharge his duty, was extremely vigilant, every time he mounted guard near the elephants, to prevent the spectators from supplying them with casual food. This conduct was not much calculated to procure him the friendship of those sagacious animals. The female, in particular, beheld him with a very jealous eye, and had several times endeavored to correct his officious interference, by besprinkling him with water from her trunk. One day, when a great number of people were collected to view these noble quadrupeds, the opportunity seemed convenient for receiving, unnoticed, a small piece of bread; but the rigorous sentinel happened then to be on duty. The female, however, placed herself before him, watched all his gestures, and the moment he opened his mouth to give the usual admonitions to the spectators, discharged a stream of water full in his face. A general laugh ensued, and the sentinel having wiped himself, stood a little on one side, and continued his vigilance. Soon after he had occasion to repeat his charge to the company, not to give anything to the elephants; but no sooner had he uttered the words, than the female laid hold of the musket, twisted it around her trunk, trod it under foot, and did not restore it till she had twisted it into the form of a corkscrew. Whether this put a stop to his officiousness we are not informed; but it probably taught him more caution in coming within the reach of an animal, whose natural appetites he was disposed unnecessarily to control.

IT'S VERY HARD.—"It's very hard to have nothing to eat but bread and milk, when others have every sort of nice things," muttered Charlie, as he sat with his wooden bowl before him. "It's very hard to have to get up on these cold mornings, and work hard all day, when others can enjoy themselves without an hour of labor. It's very hard to have to trudge along through the snow, while others roll about in their coaches."

"It's a great blessing," said his grandmother, as she sat at her knitting—"it's a great blessing to have food, when so many are hungry; to have a roof over one's

head, when so many are homeless. It's a great blessing to have sight, and hearing, and strength for daily labor, when so many are blind, deaf, or suffering."

"Why, grandmother, you seem to think that nothing is hard," said the boy, still in a grumbling tone.

"No, Charlie, there is one thing that I think very hard."

"What's that?" cried Charlie, who thought that at last his grandmother had found some cause for complaint.

"Why, boy, I think *that heart is very hard* that is not thankful for so many blessings."

M. JOUANNET relates that, in the year 1835, several old Celtic tombs were discovered near Begorac. Under the head of each of the dead bodies there was found a small square or brick, with a hole in each, containing a few seeds, which had been placed there beside the dead by the heathen friends, who had buried them, perhaps, 1,500 or 1,700 years before. These seeds were carefully sowed by those who found them. What was seen to spring from the dust of the dead? Beautiful sun-flowers, blue corn flowers, and clover-bearing blossoms, as bright and sweet as those which are woven into wreaths by the merry children now playing in our fields.

Some years ago, a vase, hermetically sealed, was found in a mummy pit in Egypt by the English traveller, WILKINSON, who sent it to the British Museum. The librarian there, having unfortunately broken it, discovered in it a few grains of wheat and one or two peas, old, wrinkled, and as hard as a stone. The peas were planted carefully under glass on the 4th of June, 1844, and at the end of thirty days, these seeds were seen to spring up into new life. They had been buried probably 3,000 years ago, perhaps in the time of Moses, and had slept all that long time, apparently dead, yet still living in the dust of the tomb.—*Guaissen*.

BETTER the child weep than the father.

THE world is for him who has patience.

No pains, no gains; no sweat, no sweet.

It is too late to spare when all is spent.

He who says what he likes, shall hear what he does not like.

It is easy to go afoot when one leads a horse by the bridle.

Who has a mouth, let him not say to another, "Blow."

BIRDS FLY.—A very simple game, in which all the players place a finger on the table, or on the knees of the conductor of the game, to be raised in the air when the conductor says—"Birds fly," "Pigeons (or any winged object in natural history) fly."

If he names a non-winged animal, and any player raises his hand in distraction, the latter pays a forfeit—the same in case of his neglecting to raise it at the name of a bird or winged insect.

REFRACTION OF LIGHT.—Take a basin, put a shilling into it, withdraw from the basin until the shilling cannot be seen; then let the basin be filled up with water, and the coin will again appear. This is caused by the rays of light passing from the lighter medium of the air through the denser medium of the water, and thus becoming refracted.]

Miscellaneous.

FREIHEIT DIE ICH MEINE.

[From the German of M. Von Schenkendorf.]

FREEDOM! as I love thee, so appear to me
Like a glorious angel heavenly fair to see;
Oft thy gallant banner has been stained with gore,
Yet amid the stars it shines forever more.

In the merry greenwood beams thine honest face,
Under clustering blossoms is thy dwelling place;
'Tis a cheerful life when Freedom's happy voice
Makes the woodland ring and bids the heart rejoice.

Up from gloomy caves, from dens of darkest night—
Up the soul can rise to realms of heavenly light;
For our country's altars, for our father's halls,
For our loved ones we can die when Freedom calls.

Freedom! as I love thee, so appear to me
Like a glorious angel wondrous fair to see;
Freedom! dearest treasure—noblest gift of God—
In our dear old country make thy long abode.

PITR used to make great fun of a practical joke to which his friend DUNDAS fell a victim during a political trip in Scotland. The latter, who was a Cabinet Minister at the time, sent for a barber while he was staying in Edinburgh; and the Scotch Figaro, before beginning his task, made himself the echo of the dissatisfaction then prevailing in the city against the statesman by saying ironically, "We are much obliged to you, Mr. DUNDAS, for the part you have played in London." What, are you a politician?" asked DUNDAS; "I sent for [a barber." "Oh, very good, I will shave you," replied the practitioner, with a bow. He really shaved one cheek of the minister, and then suddenly passed the back of the razor across his neck, exclaiming, "There, traitor, that is for you!"—after doing which he ran out of the house at full speed. DUNDAS thought for a moment that his throat was really cut, and shouted for help. The news that the minister was assassinated spread over the whole city, but the alarm was soon converted into a general outburst of laughter, and the barber became for the day the hero of the public favor. PITR, in allusion to this event, was fond of asking DUNDAS whether he was quite sure of having his head on his shoulders.

LAUGHTER.—O glorious laughter! thou man-loving spirit, that for a time dost take the burden from the weary back; that dost lay salve to the feet, bruised and cut by flints and sharps; that takest blood-baking melancholy by the nose and maketh it grin despite itself; that all the sorrows of the past, the doubts of the future, confoundest in the joy of the present; that maketh man truly philosophic—conqueror of himself. What was talked of as the golden chain of love, was nothing but a succession of laughs—a chromatic scale of merriment, reaching from earth to Olympus.

A FAIR BARBARIAN.—The recent triumph of modern mechanical art, of mind over matter, has thrown ancient ingenuity, even of the highest order, quite into the shade. Let us take one instance: "In Egypt I saw Cleopatra's needle," a young lady, returning from school in England to her home in India, wrote lately to her friends; "but I thought very little of it, I assure you, after having seen the sewing machine in London."

AN Irishman driven to desperation by the stringency of the money market, and the high price of provisions, procured a pistol and took to the road. Meeting a traveler, he stopped him with: "Your money or your life?" Seeing Pat was green he said: "I'll tell you what I will do. I'll give you all my money for that pistol." "Agreed." Pat received the money and handed over the pistol. "Now," said the traveler, "hand back that money or I'll blow your brains out." "Blaze away, my hearty!" said Pat, "niver a dhróp of powther there's in it."

A WORTHY farmer who thoroughly detested taxes and tax collectors, was once called on by a collector a second time for money, for which he had mislaid the receipt, and as he told the story to his friend: "Well," said the friend, "what did you do?" "Do! why, I remonstrated with him?" "And to what effect?" "Well, I don't know to what effect, but the poker was bent!"

HAD HIM THERE.—A waggish curate overheard the school master giving lessons in grammar. "You cannot place *a*, the singular article," said the preceptor, "before plural nouns. No one can say *a* pigs, *a* women, *a*—" "Nonsense," cried the curate. "The Prayer book knows better than you, I should think, or it would not teach me to say *a*-men."

THE celebrated DAVID CROCKET, on visiting a menagerie, was comparing the countenance of a monkey to that of one of his fellow members of Congress. Turning he saw the gentleman had overheard his remark; so, to make matters pleasant, he said: "I do not know which to apologize to—you or the monkey."

LORD ERSKINE.—When his Lordship was admitted a member of the Fishmongers' Company he, of course, made a speech. On coming home he said to a friend: "I spoke ill to-day, and stammered and hesitated in the opening." His friend replied: "You certainly *floundered*, but I thought you did so in compliment to the Fishmongers."

HOW TO BE AN EARLY RISER.—Jump out of bed the moment you hear a knock at the door. The man who hesitates when he is called is lost. The mind should be made up in a minute; for early rising is one of those subjects that admits of no *turning over*.

DOMESTIC SWEETMEATS.—It is a singular fact that many ladies who know how to preserve everything else, can't preserve their tempers. Yet it may easily be done on the self-sealing principle. It is only to "keep the mouth of the vessel closed."

HARD TIMES.—In speaking of hard times down in Tennessee the Memphis *Argus* says: "Mathematicians agree that ten mills make one cent. At the present price of wheat we doubt if *twenty* mills can make a cent."

REPARTEE.—Two old New England ministers were riding by a gallows, when the older one asked the other: "Where would you be if that tree had its proper fruits?" "Riding *alone*, sir," was the reply.

News Items.

GALVESTON, Texas, is in possession of Federal troops.

THE rebels are said to be in large force near Memphis, Tennessee.

THE rebels are in possession of the Tennessee shore, opposite Island No. 10.

GOLD is selling in Richmond at \$1.60@ \$1.75, and silver at \$1.25@ \$1.30 per cent.

A COLORED man was murdered in this city last Friday night. His body was thrown into the river.

OUR public debt, on the 1st of October, was \$620,000,000. This is much less than had been supposed.

STUART'S dash into Pennsylvania seems to have been only to procure clothes and horses, in which they were perfectly successful.

THE rebels are arming the negroes. It is said 8,000 blacks, officered by white men, have been sent to garrison fortifications, &c.

Gov. MORTON, of Indiana, has ordered that 40 per cent. of the Quakers of the State be assessed for enrolment, and those drafted are to go or pay \$200.

GOVERNMENT has offered to buy the rebel privateer *Alabama*, from any party capturing the vessel, for \$500,000, and in the event of its destruction, \$800,000.

THE British steamer *Lloyd* ran the blockade at Charleston, and arrived at Liverpool on the 30th of September, with a cargo of 1,755 bales of cotton.

THE population of the Sandwich Islands has dwindled to 67,000, from 150,000 in 1823. Disease is carrying off the inhabitants by the thousand.

Of the twenty-five thousand operatives dependent, directly or indirectly, on the cotton trade in Glasgow, five thousand are wholly unemployed, while nine thousand are working short time.

THE indications now are (October 28), that our army and navy will not long remain inactive, and we are told that the preparations are such as to insure the speedy suppression of the rebellion.

SINCE the commencement of the war we have captured seven gunboats from the rebels, mostly in the West. All of them have been transferred to our Navy, but they still retain their original names.

THE One Hundred and Eighth Regiment, which left this city two months ago one thousand strong, can now only muster, it is said, four hundred effective men. They have seen hard fighting for raw recruits.

THE telegraphic communication now in course of construction by Mr. RENTER, through Russia, Siberia and Mongolia, to connect Pekin with St. Petersburg and London, is expected to be completed in six months.

THE spirit ration in the Navy having been abolished, the Government will sell at auction, at the different naval stations, about three thousand barrels of whisky on its arrival from different vessels and naval depots.

A PROTESTANT chapel has been inaugurated at Chalons for the French soldiers in camp there belonging to the reformed faith, who number about five hundred. There is accommodation in the chapel for six hundred worshippers.

THE betrothal of the Prince of Wales to the Princess Alexandra of Denmark took place on the 9th of September, at the Palace of Lacken. This is said to be an affair of the heart, and in no way connected with political considerations.

It is said that most of the cotton manufacturers in Great Britain would have been ruined if the war had not stopped the supply of cotton, and so enabled them to sell off their old stock, which was much greater than the ordinary demand.

THE wife of LIVINGSTONE, the Missionary Explorer, died April 27th. She had joined her husband on the Lambei river, and was with him three months. She was attacked by fever and had become convalescent, but suffered a relapse which proved fatal.

A GUN called the "Hersfall Gun," which is made of wrought iron and capable of throwing a 800-pound spherical shot, was tried lately in England with great success. It pierced the target, which was made of iron-plate and timber, through and through.

A SUEC dealer in Albany was last week victimized by a man who purchased a pair of boots for four dollars, and tendered therefor a two dollar Treasury note, altered to a fifty, and the rogue walked off with forty-six dollars in good money, and the boots.

OUR forces have been entirely successful in North Western Arkansas. A battle took place October 22d. The enemy, seven thousand strong, was encamped on the old battle-field of Pea Ridge. They were entirely routed, with the loss of all their artillery. The loss on our side was small.

IN the British House of Lords, Lord SHAFTESBURY has expressed his belief that "there is more cotton lying idle in India than would keep going all the mills in Lancashire." He added that, according to his information, the quantity of this precious article ready for market is about six million bales.

AN officer who has visited every plantation on both sides of the Mississippi for two hundred miles, informs us that he found but one Union family, and he brought them North. He also said that the rebels have corn enough within their lines in the Mississippi Valley to feed their entire population for a year, if economically used; but, he added, usually one-half is wasted.

THE losses of our forces at the Battle of luka, where ROSSCRANS defeated PRINCE, were 736 killed, wounded and missing. The rebel dead left on the field, wounded left in hospital, and the prisoners, numbered 1,433. Besides considerable quantities of quartermaster's and commissary stores, we captured from the rebels 1,629 stand of small arms and 13,000 rounds of ammunition.

WE have at present nearly four hundred vessels in the Navy, either actually in service or nearly ready for use. Among these are fifty-two iron-clads, thirty-eight of which are yet unfinished, but will be completed in the course of the winter. Two of them are of unusual dimensions—the *Dictator* and the *Dunderberg*—the former being 3,033 tons burthen and the latter 4,000. There are 249 vessels in active service at the present time.

AN officer in Gen. GRANT'S army informs us that one of the Federal soldiers, the night before the commencement of the fight at Corinth, went to Gen. PRICE'S camp and offered to show the rebel General where our army was defenceless. He deceived the General, and brought a detachment to the place he had designated. Then returning within our lines, he informed the proper officers where the rebels would make the attack the next morning, and when they arrived they were welcomed by two batteries which had been erected in the mean time.

SINCE our last issue several very important events have occurred. Our victory at Corinth is acknowledged by the rebels to be one of the most complete and decisive of the war. There were but 14,000 of our troops and 45,000 of theirs engaged. In Kentucky and Tennessee we have also been successful. The Battle of Perryville, Ky., was so disastrous to the Southern cause that Gen. BRAGG has been obliged to retire through Cumberland Gap. The Richmond *Whig* of the 20th says that the Kentucky movement in the hands of BRAGG has turned out to be simply a fizzle. It has been from beginning to end a brilliant blunder and a magnificent failure.



WALKS AND TALKS IN THE GARDEN.—No. VII.

"A WALK in the garden at this season of the year, on a warm sunny day, with a pleasant breeze laden with the rich perfumes of autumnal fruits and flowers, is delightful indeed. An orchard of dwarf pear trees when in full blossom, is a gorgeous spectacle; and I have sometimes thought they would be worth cultivating for this alone, but in the autumn, when the trees are loaded with fine, large specimens of golden fruit, I cannot but be thankful that we have not to cultivate them merely for ornamental purposes. The fruit is beautiful to look at, and not that alone,—a Seckel, a Buffum, or a Duchess, is as pleasant to the palate as to the eye.

"Bad as is the blight when it enters an orchard, we cannot give up pear culture as yet."

"A grape trellis at this season is no less attractive. We have had no frost as yet, (Oct. 21) and grapes are ripening much better than was expected. Even Dianas are ripening well, and when you get a good, perfectly ripe bunch of Diana, there is nothing superior to it. It beats even my little pet the Delaware. But then the Delaware is sure to ripen, while the Diana is not. I had bunches of Delaware perfectly ripe on the open trellis by the middle of September.

"I like the Rebecca with its rich golden fruit more than ever this year. Isabella, Concord, and Hartford Prolific, taste pretty well when you are very 'grape hungry'—but eat a bunch of Delaware, Rebecca, or Diana, and then try a bunch of the former, and it will taste flat enough.

"Since even the 'Revised Edition of Downing's Fruits and Fruit Trees' was published in 1858, we have made considerable progress in grape knowledge. I fancy few would now endorse the remark then made—that 'no farmer's garden, however small, should be without the Isabella and Catawba.'

"It is pleasant to 'walk and talk' in the garden at this season, and behold the rich rewards of the

spring and summer's care and labor; but the days are getting shorter, and there is yet much to be done, and 'help' is scarce. We must work and not talk. This beautiful fuchsia must be taken up and stowed away in the cellar, or Jack Frost will seize it in his icy hand. It is hardly worth while to try to save the verbenas. If they are well covered with leaves they *may* survive the winter where they are, and if they do not, we must set out new ones next spring.

"I like celery, and I wish some one could discover an easy way of keeping it for winter use.—As yet there is no way that I know of that does not involve considerable trouble. Perhaps the easiest way is to put it in the cellar in layers, with some dry sand or sifted coal ashes between each layer.—Another way is to dig a trench in the ground, two feet deep and eighteen inches wide, and pack in the celery plants close together, standing upright. A trench ten feet long will hold over a hundred plants. No soil should be mixed with them, though a little may be left on the roots. The roots will continue to grow a little, and the celery will bleach nicely in the trench. A couple of boards are placed in the form of a roof over the trench—a board on each side. On dry days these may be opened to afford ventilation. When cold weather sets in, the top is covered with littery manure, leaves, etc. The celery can be taken out as it is wanted, by opening one end and crawling in under the boards, closing it up again carefully to keep out the frost. In mild weather during the winter, it is well to open both ends to afford ventilation. The soil when the trench is made, of course, must be perfectly dry. I have eaten celery in May kept in this way, that was sweet, firm and delicious.

"I suppose the best way to keep winter pears is in barrels like apples, but I have had no experience. They should be allowed to remain on the trees till they are perfectly matured—as long as they will hang on, and there is no danger of frost. The trouble with most fruit cellars is, that the *ventilation* is imperfect. Pears will ripen well on shelves in a good, dry, cool cellar, if it is thoroughly ventilated—not otherwise.

"The 'tree tomato' plants are loaded with large fruit, and I am going to dig them up and put them in the cellar, to see if they will ripen. It is said that ordinary tomato plants, hung up by the roots in a cellar, will ripen their green fruit. The 'tree tomato' is stronger and full of sap, and may be valuable for ripening in this way. Otherwise, I

do not think much of it. It has ripened very little fruit as yet, though the plants were very large when set out in the spring.

"'LESTER'S Improved' tomato has done well this season. It is one of the best tomatoes we have.

"These strawberry plants set out in August have grown splendidly. I intend to give them a covering of manure and leaves, to protect them from the winter.

"If we were sure of having as mild a winter as the last, I would risk the raspberries, but it is really very little trouble, after all, to protect them. It is only necessary to bend down the canes, and put a little soil on the ends to hold them down. A spadeful of soil will hold down two hills.

"So of grapes, the labor of taking the vines from the trellis and laying them on the ground, with a little soil on them, is very little, and it insures their safety. Last year the mice eat the canes of the Delawares and Rebeccas, and did them much damage. The Isabellas that were merely covered with soil were not touched. Leaves, and everything that will harbor the mice, should be removed. I think if the vines are simply laid on the ground, without any covering, they will not be injured by the frost. If the wood is thoroughly ripened, they will not suffer if left exposed on the trellis.

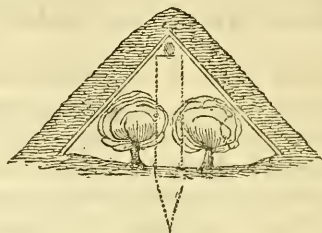
"There is no trouble about keeping the mice from fruit trees. Throw up a little soil round the trunks, six or eight inches high. Stamping the snow down hard round the trees has the same effect. The mice burrow along the ground, and the soil or hard snow prevents them from reaching the trees.

"Late cauliflowers, if taken up and the roots set in sand in the cellar, will head nicely, and be beautifully white and delicious.

"To keep cabbages in winter, there is no better way than to dig a trench in the ground, and place the cabbage in it with the roots upwards, and then cover the cabbages with soil. They come out in the spring white and sweet.

"A friend of mine last fall dug up his cabbages and set them in a pit, which he covered with a roof of boards and corn stalks. *They all rotted.* The reason doubtless was that the roof was too high, and the stalks did not keep out the frost. The editor of the *Country Gentleman* says he has adopted a similar plan for years with good success. He takes cabbages that have not headed properly, and sets them as closely as they will stand in a double row, in their natural position, in a wide and shallow trench. He then forms an earth roof over them in this way;

"Set in a piece of upright plank at each end to support the ridge pole (shown by the dotted line in the figure.) Place a rail or stiff pole on these for the ridge pole, and on this the ends of the short pieces of board in the form of a roof. Cover these boards with about six inches of earth, or enough to keep the soil from freezing in which the cabbage stand. This is the whole operation. Nearly all



these will be handsomely headed in the spring, and being entirely excluded from the light, they will be more delicate both in appearance and flavor, than common cabbage heads. Two hours labor last autumn, he says, gave him a fine supply of cabbage for a moderate family nearly through the whole spring.

"Failure has sometimes resulted by not covering the roof with sufficient earth to keep out severe cold. About six inches does well for the Northern States. A sheltered place is best. A small hole should be left at each end for ventilation. In very cold weather they might be stopped up."

So ends our "walks and talks" for this season. During the winter let us think over our plans for the future—let us hold intercourse with the wisdom of the past and the present, and seek for the best information to aid us in the quiet and pleasant labors of our favorite pursuit. Let us, above all, hope that the tramp of hostile hosts may no longer be heard in our beloved land,—but that peace, plenty and prosperity may extend throughout all our borders, and that there be no complaining in our streets.

In "Notes from Paris," in the *Cottage Gardener*, the difference in the selection of roses and other plants in England and France is noticed. In England high colors and gorgeous tints are universally preferred, while in France dull-looking roses and low-tinted flowers are the favorites. The writer thinks that the climate is the cause of this, as their bright and glaring sun leads them to admire the more sombre colors, while the leaden skies of England render the gorgeous shades more pleasing to the eye.

THE PEAR TREE BLIGHT.

In our "Walks and Talks in the Garden" for October we alluded to some facts which lead us to believe that the disease in pear trees, known as the "fire blight," is caused by a *fungus at the roots*.

The facts are these: We have a pear orchard of some seven hundred trees, principally dwarfs. Several of them have been planted ten years. They succeeded finely and bore good crops. In the summer of 1860, nearly *one hundred of these trees blighted*. Their places were refilled with new trees the same autumn. In 1861, the blight carried off eighty to ninety more trees, and the vacancies were refilled as before. This year forty fifty more trees are blighted.

In the adjoining orchards of H. E. HOOKER and JOSEPH HALL, the blight has proved almost equally destructive. About twelve years ago, all these places were occupied with nursery trees, belonging to the firm of BISSELL & HOOKER. The trees were moved, and the land sold for private residences. On digging around the roots of the blighted trees, in all three of these orchards, we have found in every case the soil filled with the old roots of the former nursery trees, and *these roots are covered with a fungus or mould*. The soil is literally alive with them. A careful examination, too, showed that the same fungus was attached to the roots of the pear trees. We have found it not only on the larger roots that were partially decayed, but also on the spongioles at the end of the fine delicate roots, that looked fresh and healthy.

Mr. WESTCOTT, of this city, who has a nice pear orchard of dwarf trees, has also suffered from the blight; and on examining the roots of his trees, we found the same fungus attached to the roots. The land was formerly occupied with peach trees.

C. W. SEELYE also states that his pear trees planted on ground previously occupied with nursery stock, has suffered much from the blight, while his trees on new land are healthy.

[Since the above was written we have examined these trees, and found the fungus on the old decaying roots in the soil.]

These are the facts:

Our idea is that the fungus growing on the old decaying roots in the soil, is taken up into the circulation of the sap by the roots of the pear tree, and that, during the warm weather in summer, it flows with great rapidity, decomposes the sap and causes the death of the branches, and finally of the tree itself.

In the last number of the London Gardeners' Chronicle, (October 4,) there is an article from the pen of the Rev. M. J. BERKELEY, one of the ablest cryptogamic botanists of Europe, in which he mentions facts which favor our hypothesis in regard to the cause of the pear blight. He says:

"A query from one of our correspondents, as to mischief amongst his Apricot and Plum trees, induces us once more to call attention to the disastrous effect of old roots remaining in the soil upon new plantations. We have at this moment in our own garden a curious instance, commencing with the death of a fine Mountain Ash, whose roots have spread the fungus poison first to two Lombardy Poplars, and then to a Lilac tree between them, and we have little doubt that other trees and shrubs will soon follow, as we have not the means of eradicating the evil.

"In making new plantations, however, of fruit trees in gardens where old trees have formerly stood, it is an act of folly or recklessness to leave the old roots in the ground. Without the most careful trenching it is quite a lottery whether the new trees are not arrested in their growth after a few years, and just as they are ready to come into full bearing their health often fails, and after a few more hopeless seasons of repeated disappointment, the new plantation follows in the wake of the old.

"Our correspondent remarks: 'I have two Apricot trees fifteen or twenty years old. They flower well, but never set fruit. I have laid the roots bare and find them covered with fungus. I send you a part of the root. What must I do? I have several Orleans Plums and Greengages in the same condition, but have not examined their roots.'

"If the case admits of remedy, it can only be by carefully cutting away every particle of the root which is affected, and tracing out carefully the old roots from whence it is derived. This treatment was completely effectual at Kew in the case of a Deodara which had been planted over an old Cherry root, and if the evil is not too far advanced, it may probably be successful in that of our correspondent's Apricots. There is little doubt that these as well as his Plums have succeeded old trees, whose roots were never removed, for this is the secret of trees so often failing on old walls, and not any exhaustion of the soil.

"The fungus evil is of far wider extent than cultivators often imagine. In our gardens it not only proves destructive to trees and shrubs, but to Strawberry plants where the old stock has been dug in. In this case we are convinced it is a frequent cause of blight, and other maladies which consist in a depressed state of vitality which does not allow the plant to arrive at perfection.

"Let the cultivator be very careful then never to dig in anything which is sufficiently woody to produce fungus spawn. Let him avoid leaf-mould which has not entered into a thorough state of decomposition, so that the component parts cannot be recognized, and above all let him abhor the bottoms of old faggot ricks, which are a very frequent cause of mischief in the conservatory.

"A friend lately consulted us as to the propriety of digging in some spent bark into a clay border

with a view to alter its texture, but we should as soon use arsenic to fine wine. * * The hazard of such a practice is manifest enough in every hot-house, as no substance more readily produces a quantity of mycelium, and we believe almost any mycelium coming in contact with healthy roots has a tendency to depress vitality."

If our views in regard to the cause of the pear blight are correct, the practice of setting out new trees in the places occupied by the blighted ones should either be abandoned, or great care should be taken to remove every particle of the old roots. One fact should also be mentioned: We have never found any of these old roots with the fungus on them more than a foot deep: In the subsoil, not a particle of fungus could be found; and it is possible that by deep trenching and removing all the old roots, new trees might be set out with safety. We have thought, too, that a heavy dressing of lime might destroy the fungus. Our plan would be to dig up the old trees this fall, throwing the soil up four or five feet, in a radius round the old tree, and let it be exposed to the frost of the coming winter. Let all the old roots be removed, and then at the time of planting the pear trees, next spring, mix a couple of bushels of slacked lime with the soil, around each tree. If the trees have been already ordered from the nursery, they may be "heeled in" for the winter and set out next spring after the soil is prepared.

If a new orchard is to be planted, avoid old roots, chip-manure and any woody matter that will produce fungus, as you would poison.

We may add that standard trees are just as liable to blight as the dwarfs. We can see no difference in this respect.

J. SAUL, in the *Gardeners' Magazine of Botany*, in an article on "Budding Roses," says that the best weather for this operation is not rainy and damp days, as usually said, but a bright, warm, sunny time should be chosen. In answer to the question, "Is it necessary to extract the wood from the bud?" he says "Yes," and adds: "American writers say 'No,' but this is probably owing to the difference between their hot, dry climate and ours (English.) The shoots selected should be firm, and for tying, cotton yarn is the best material that can be used.

At the August meeting of the Royal Horticultural Society, a seedling rhubarb was exhibited which has the flavor of green gooseberries. Both of these rather inferior fruits are great favorites in England, and have been carried to a much greater degree of perfection than in this country.

A GOOD APPLE PICKER.

The editor of the *Country Gentleman* says he has tried a number of experiments with different kinds of fruit pickers—baskets with hooks, baskets on poles, canvass tables, &c., but found nothing so convenient and perfect as the one represented in the annexed cut, for at least nine-tenths of the crop if suitable ladders are provided.

The simplicity and cheapness of the fruit-picker here figured are a strong recommendation. It is merely a common grain-bag, with one corner at the bottom tied to one corner at the top, and slung over the workman's left shoulder. A stick, sharpened at each end, and about a foot long, props the mouth open, leaving a triangular opening, into



which the apples are thrust as they are picked from the branch. The way in which the lower and upper corner are most conveniently tied together, is by placing a small stone or pebble in the lower corner, (to form a sort of bottom,) and then passing the bag strings around closely above it, and tying them firmly. A piece of stiff leather, buttoned on to the shoulder, serves to protect it from becoming sore if the picking is continued several days.

In most cases the operator may stand on the ladder, and use *both hands*, thrusting the fruit rapidly into the open mouth of the bag, which is gradually raised up a little over the shoulder as it becomes filled. Over half a bushel may be placed in it at a time, without becoming inconveniently heavy, and the time for filling it once is not usually over five minutes.

Fruit gathered in this way is less liable to become bruised than when baskets are used, or in any other way; and when the bag is filled it may be placed on the very bottom of a barrel in emptying, without that rattling and confusion caused by inverting a basket.

Society met in Rochester September 30, the first of the State Fair. There was a good attendance of students. The following subjects were discussed:

THOMAS stated that at the recent meeting of the Pomological Society, at Boston, the Hartford received a storm of approbation from all quarters. The Delaware was well spoken of, the only objection being to its small size. Bunches were exhibited $\frac{3}{4}$ lb., but $\frac{1}{2}$ lb. was the average. Nevertheless, thought by H. E. HOOKER and others that as much could be raised from a vine as of larger varieties. The name Hartford Prolific, Delaware and Concord. SELLWANGER thought the Hartford Prolific more desirable for market, but would prefer the Delaware for eating. Had fruited the Hartford Prolific six or seven years, and this year thought more of it than ever. A fine grower and productive. It did not mildew as Isabella. It is very early. In answer to a question he said it would not make good wine—certainly Isabella will not. We have no grape that will in this latitude unless it is the Delaware. The Concord, in Massachusetts excellent wine. A grape to make good wine must be perfectly ripe—should be ripe a month or more before it is gathered.

. HOAG and ELLWANGER confirmed the latter regard to the dropping of the Concord.

BLWANGER remarked that at Boston a gentleman had this year sold his Hartford Pro New York at 15 cents per lb. They were the grape in market.

IOAG, of Lockport, liked Hartford Prolific and that Delaware was far ahead of anything we had seen. It bore three or four hundred vines of Hartford Prolific on trellises. They produce as much as Isabella's, and as much as Concord's of the same age. Mildew did not trouble him. Rebecca is more productive as it is older. His Delawares had borne two heavy crops before, but this year there was a poor crop. He said, "Do vines need rest?"

Answoorth, of East Bloomfield, thought Hartford the best *early* grape, and there it ends. I paid a good price until other varieties come into market, aware the best for quality. Bears very well and market. Had tried it in his cold grapery. It and he preferred it to Black Hamburg. When med, Isabella is excellent; but it does not always Hartford Prolific is a week earlier.

NER, of Honeye Falls, said Delaware ripens as Hartford Prolific. It was ripe this year by the September. Diana kept well in winter; Deianot. It dries up like a rasin.

LEWIS F. ALLEN, of Black Rock, thought the world moves. Four or five years ago he was at one of these meetings, and the Isabella was well spoken of. He was glad that their opinions had changed. It rarely ripens in this section. In New York it was excellent; but in this climate it must go out of cultivation. The location had much to do with the success of a vineyard. On Kelley's Island, near Sandusky, Ohio, the grape was cultivated to an enormous extent, and though some 200 miles north, the Catawba was quite as good there as at Cincinnati. The island contains some 3,000 acres. It is a clay soil, some 14 or 15 feet deep, resting on a porous lime-rock. In regard to making wine, he remarked that he had been on many wine-tasting committees, and had never yet tasted a good bottle of American wine. It was generally a mere "syrup." The manufacturers' thought it was good, but they knew no better. He recollected once being at a public dinner in this city when DANIEL WEBSTER was present. If any man knew what good wine was he did. A gentleman from Chautauque county was present, and had some wine with him of his own make that he thought excellent. He wished Mr. ALLEN to pass it to Mr. WEBSTER. At first he declined; but on being urged he handed it to him with the remark that it was Chautauque wine. "This is Chautauque wine, is it?" said Mr. W., as he put it to his lips; then removing it hastily, and putting on a wry face, he exclaimed: "*Vinegar and molasses!*"

C. L. Hoag thought the Delaware contained sugar enough to make good wine.

Mr. FISHER, of Batavia, asked about the Ontario. He saw it at the late Provincial Fair at Toronto. The bunches were very large, weighing 1½ to 1¾ lbs. each.

CHARLES DOWNING said it was nothing more or less than the Union Village.

Mr. ELLWANGER thought so, too.

JOSIAH SALTER had fruited the Ontario for two seasons, and he thought it was entirely distinct from the Union Village.

LINUS DE WOLFE, of Wyoming, was called upon. He applies well-rotted barn-yard manure to his grape vines, at least once a year; applies it to the surface. He believes in surface manuring. He also applies all the unleached ashes he can procure to his grape vines. Thinks them excellent, both for pears and grapes. Does not believe in the carcasses of dead animals beneath the grape vines, as is sometimes practiced, unless they were thoroughly composted with the soil. Thought he could taste them in the flavor of the grape.

Mr. Wolcott, of East Bloomfield, planted a three-acre vineyard in 1856. There was near him a slaughter-house, where 10,000 sheep had been killed. He procured the refuse, and applied what would be equivalent to *three sheep* to each vine! The vines had done well; but he would not like to use such matter unless it was well decomposed.

Mr. SMITH, of Livonia, had applied pieces of carcass to

fifty pear trees when he set them out. *They all died the first year!*

J. J. THOMAS had buried a cow in a heap of muck. In a year all had disappeared except bones, and he thought if the carcasses were well covered with soil, so that the roots would not come in immediate contact with them, no harm would be done.

BENJAMIN FISH, of Rochester, had placed carcasses midway between the rows of grape vines, and they had certainly done no harm.

Mr. ELLWANGER said if the soil was in good ordinary cultivation, *he would not apply a particle of manure to grape vines.* Had trenched his vineyard three feet deep and manured it. It was a great mistake. The vines grew too luxuriantly. Dr. GRANT had recommended a mode of trenching, manuring, &c., that would cost \$1,500 per acre! It was money thrown away. He would set out the vines without manure of any kind, and if the soil was found to be too poor he would apply manure in the fall to the surface.

E. MOODY, of Lockport, agreed with Mr. ELLWANGER. It is a great mistake to manure so heavily. There is very little land that is not rich enough. On clay soils deep trenching might be necessary.

J. J. THOMAS said Dr. UNDERHILL, of Croton Point, who is justly celebrated for his success in raising grapes, trenches and manures his vineyard; but a brother of Dr. UNDERHILL had told him that he did not, and that his grapes are just as good. *He cultivates the surface of the ground some fifteen times during the summer!*

Mr. QUAIL, of Middlebury, formerly manured his grape vines, but found it a mistake—produces suckering and too much wood. On the highest and poorest land his grapes were the best. Lime and ashes might be of benefit.

3. Peaches for Market.

H. N. LANGWORTHY said there is more money made on late peaches than on early ones. They could be sent to market more easily and safely. The best early peach is Early Purple. Crawford's Early is the best peach ever introduced for market. The Sweetwaters (George IV, Kensington, &c.) have all run out. Cooledge's Favorite had supplied their place. Late Crawford has nearly disappeared in this section.

E. MOODY raised excellent Late Crawfords. Would cultivate the trees low and *thin out the fruit.* The trees bear too much. Two-thirds of the fruit should be removed. The remainder will be large and of much better quality. He had sold peaches from trees so thinned for \$1.25 per basket, while those from unthinned trees brought only 50 cents. The yield of fruit is about the same in both cases. The thinned fruit is much larger, and can be picked with far less labor. One man had picked eighty baskets in a day. After the trees have borne three crops he would remove them and plant again. In regard to marketing he said boxes are preferred to baskets, because they can be piled one upon another. If the car is provided with shelves, as in his own case they were this year, baskets are best, as the peaches do not bruise so much as in boxes.

Some remarks were made in regard to the cause of the pear blight. Mr. BARRY proposed as a cure to "plant two trees for every one that blighted."

THE RED MAPLE.

THE *Atlantic Monthly* for October contains an interesting article on "Autumnal Tints," written by Mr. THOREAU. Europeans coming to America are surprised at the brilliancy of our autumn foliage. There is nothing equal to it in the Old World. The leaves of nearly all our trees, when they ripen and are ready to fall, assume more or less of a scarlet tinge. The Red Maple is the earliest. By the 1st of October evergreen from lowest limb to topmost spire, is all in red. Some redden earlier than others, and appear more striking from the fresh green foliage of their neighbors. A large Red Maple swamp, with its height of its change, is the most obtrusive and brilliant of all tangible things. Mr. THOREAU dwells thus pleasantly on the subject:

"A small Red Maple has grown, perchance, away at the head of some retired valley, far from any road, unobserved. It has faithfully discharged the duties of a Maple there, all winter, summer, neglected none of its economic duties, added to its stature in the virtue which befits a Maple, by a steady growth for so many years, never having gone gadding abroad, and is now in heaven than it was in the spring. It has faithfully husbanded its sap, and afforded a shelter to a wandering bird, has long since ripened its leaves, and committed them to the winds, and has thus satisfied of knowing, perhaps, that a third of the little well-behaved Maples are already settled on life somewhere. It deserves well of Mapledom. Its leaves have been asking it from time to time in a whisper, 'When shall we redden?' And in the month of September, this month of September, when men are hastening to the sea-side, to the mountain, or the lakes, this modest Maple, without budging an inch, travels in its reputation runs up its scarlet flag on that hill-side, and shows that it has finished its summer's work, and all other trees, and withdraws from the competition. At the eleventh hour of the year, the tree is under no scrutiny could have detected here when most industrious is thus, by the tint of its maples, by its very blushes, revealed at last to the casual and distant traveler, and leads his thoughts from the dusty road into those brave scenes which it inhabits. It flashes out conspicuously all the virtues and beauty of a Maple, *rubrum*. We may now read its title, or its clear. Its virtues, and not its sins, are as so clear."

A new honey-suckle, with golden-veined flowers, was exhibited by Mr. STANDISH at Regent Street and South Kensington, where it received a certificate of merit of the first-class. It was sent from Japan by Mr. FORTUNE. The stems, when mature, are of a deep red color, and the midrib of the leaves is quite crimson when naturally grown, but turns that color when forced. It was shown under the name of *Lonicera reticulata*.

A NEW FRUIT.

with much pleasure that we are enabled to give our readers some facts in reference to each promise to be of high value, both to the amateur cultivator and the market fruit-grower. For sometime we have been aware that Dr. H. H. Honeoye Falls, in this county, was the

A present of two baskets of this fruit—two distinct varieties—and an invitation to come and see for ourselves, and we must not omit the fragrance of those two baskets of fruit nor the pleasure we enjoyed in eating them with our friends, awakened a latent curiosity to see, to feel and to handle the fruit on the plants—to learn of their mode of growth, their cultivation and their history.

Without detaining our readers with the details of our pleasant visit, we will mention what we saw and learned of the new fruits, for as we have intimated the Dr. has succeeded in raising two seedlings of superior merit. These seedlings were originated six or eight years ago, from seed of the common wild Dewberry, or low Blackberry (*Rubus Canadensis*). Among a great number of plants which were produced and kept in cultivation until they showed their fruit, two only showed signs of merit, which were very decided; all the other plants were discarded, and these two were cultivated with care for several years to see if their apparent characters were real and permanent. Fortunately the desires of the experimenter have been fully realized, and several years of continuous fruiting has firmly established their value.

As all our readers may not be acquainted with the habits of this plant, we will briefly state its distinguishing traits.

The slender stems, about a quarter of an inch in diameter, trail along on the ground extending from the root to a distance of ten or fifteen feet—a vigorous plant produces a score or more of these stems each season.

The stems are furnished with a very few small thorns, and trifoliate leaves; the leaflets are about an inch and a half long and half as wide, of a light green color; leaf stem from one to two inches in length and a little prickly.

The fruit is borne on slender stems two or three inches in length, is shining, jet black, fragrant, sweet and

juicy. Most of the fruit in a wild state is imperfect, developing a drupe only here and there over its surface; cultivation of the wild plants does not in the least improve this habit, according to Dr. M. The seedlings to which we now direct attention have not this fault of the wild



PLANT OF THE DEWBERRY.

tor of a seedling Dewberry, but as the Dr. was desirous to fully prove the success of his undertaking before allowing it to be much known, attention has been but little attracted to it the present season.

type, but are fully developed in every case—their size is very large, nearly or quite equalling the best specimens of the New Rochelle blackberry. In quality and flavor they are far superior to any blackberry known, and are very prolific and hardy.

The plants propagate themselves by striking root at the ends of the shoots, and never throw up any suckers.

The plat of ground which Dr. M. has devoted to these fruits, is about one-eighth of an acre. The plants are set out about five feet apart in squares; early in the spring a pole or stake is driven down by the side of each plant, standing five or six feet high, around which the fine, long, flexible shoots of the previous year's growth are wound, and fastened by a string, tying them at the top, thus



FRUIT OF THE DEWBERRY—NATURAL SIZE.

forming a kind of cylinder or cone. By this mode of training, the fruit hangs outside, clear of the foliage all around, affording the greatest facility for gathering. The new growth is allowed to trail on the ground until the succeeding spring.

The plants do not occupy much space, and three feet each way would be ample room to allow them.

We judged that the plants produced about two quarts of berries each.

The two varieties are distinct from each other in fruit and foliage and period of ripening. The early variety is more fragrant and sweeter than the later one, and at the date we saw them (Aug.

5th) was nearly gone, while the other was perfection. It will be seen, therefore, that the varieties mature earlier than either the Dorchester or New Rochelle blackberries, which are not ripe (Aug. 20th) at the height of their season.

As the originator of these fruits has parted with some of the plants to different individuals, they will probably be spread throughout the country from several sources, and as none have been used to distinguish the varieties, it is possible that some confusion may arise in regard to this matter, and we will notice that the leaves of the early kind are doubly dentate, while those of the later variety are sharply serrate.

We think it desirable that the term *Dewberry* should be used to designate these plants, instead of *Blackberry*, as their mode of growth is so different from the high *Blackberry*.

In conclusion, we will state that it is our opinion that these fruits will meet with a favorable reception by the public, and for private gardens preferred to the rank-growing high blackberries. In the market they will readily command a higher price than any other blackberry, but as their season is so much earlier they will not come into competition. For a table fruit they are fair—sweet, juicy and luscious—no setting of teeth on edge.

PROTECTION TO PEACH ORCHARDS NOT A DESIRABLE.

EDGAR SANDERS, a well-known horticulturist of Chicago, mentions a fact in the *Prairie Farmer* which claims attention. He has been to the peach region around St. Josephs, Mich., and found that *in all exposed places the crop was good—excellent—while the protected orchards were a failure.*

If true, the fact should be generally known. For some years our horticultural writers have insisted on the importance of shelter. It has been thought that one of the principal reasons why peaches are a less certain crop in this section formerly was owing to the removal of the trees which broke the force of the wind; and it has been thought desirable to form artificial screens by planting belts of rapid-growing trees. The practical testimony of fruit-growers is in favor of this practice. At the West, and more especially in the prairies, these screens have been thought indispensable to the success of an orchard.

The fact mentioned by Mr. SANDERS throws some doubts on the correctness of these views. The experience of Mr. EVANS, of Southern Illinois,

ed as confirming the *injurious* effect of
He would plant on "the most exposed
and have no break-winds to interfere."
anation of the matter is, that "the circu-
the air keeps off late spring frosts, while
trary takes place in all orchards nicely
l from the winds."

practice of planting peach trees in valleys
g been condemned, from the fact that they
liable to frosts than the higher land in the
rhood—the cold air falling down into the

But we had supposed that if an orchard
nted on high ground, a belt of timber that
break the force of the wind was very desi-

our experienced fruit-growers give us their
n this subject?

THE WATER GARDEN.

manner of cultivating flowers in the house
ng been known, but as it is generally
d to hyacinths or other spring bulbs, and
is required for each bloom, it has not
as general an addition to our parlors and
rooms as it should be. A writer in "Godey's
Book," says: "We have repeatedly grown
snow-drops, and other bulbous plants in
filled with damp moss, and have thus pro-
some charming ornaments for the sideboard
eakfast table"; and then quotes from a very
ok, entitled "A Flower Garden for Gentle-
ad Ladies; or, the Art of Raising Flowers
at Trouble, to Blow in full Perfection in the
of Winter, in a Bed-chamber, Closet, or
g-room." The author regards himself as the
er of the art of growing flowers with water.

He had at Christmas, beside the ordinary
"fine" young salads," and "great double
s, red and white primroses, and striped
othuses." He says: "They flourished in
asses in as much perfection as they would
done in the garden in summer." His glasses
not prepared for the purpose, but were make-
—anything that he could pick up. He had

glass basins, larger at the top than the
m; to these he fitted corks, which floated
the water. In these corks he cut holes for
oots, which he placed in clusters to produce
ter effect when the plants should be in bloom.

describes, with great minuteness, his manner
nding them—giving them a little air, a great
of light, and not allowing the bulbous roots to
covered with the water; and as he was evi-

dently a lover of flowers, they all prospered in his
hands. A rather curious experiment is also men-
tioned in the same article:

"Many of our readers are, doubtless, acquainted
with that interesting botanical experiment of
growing an acorn in water, which has been
christened "the acorn tree." In country places
these delicate little sprouting oaks are very favorite
parlor ornaments, but we rarely catch a glimpse of
them in town apartments, where their presence
would be particularly desirable. An acorn tree
can be grown in a common wide-mouthed phial,
but more conveniently in a white hyacinth glass,
which may be procured from a florist. In order to
form one of these trees, take a ripe acorn, and,
having removed its cup, steep it for a day or two
in rain water; or let it lie among some damp moss.
Then tie a thread round it, and suspend it in the
hyacinth glass from a piece of cork or cardboard,
which must be made to fit the mouth of the glass
so tightly as to exclude the air. The acorn should
hang about a quarter of an inch above the surface
of the rain water, with which the glass is to be
half filled. In a few weeks the acorn will begin to
sprout, and the whole process of its germination
may be observed through the transparent sides of
the glass vessel. As soon as the leaves reach the
cork, another arrangement must be adopted. The
hole through which the thread passed must be
widened, in order that the leaves may be pushed
through it. The young plant must then be raised
and resuspended, so that its rootlets just touch the
water. The tree will continue to grow, and will
flourish for three or four years if proper care be
taken to cleanse its roots from fungi, and to change
the water whenever it becomes slimy or turbid.
A horsechestnut may be grown in a similar man-
ner."

THE London *Florist* says that two new grapes
have been brought out in England—one by Mr.
WILLIAM THOMPSON, gardener to the Duke of
Buccleuch. It produces a bunch a foot long, and
weighing one pound two ounces. It has a delicious
flavor, richer than any Muscat, being of a mixed
honied and sugary character. It is to be named
the "Duchess of Buccleuch." The other one is
that raised by Mr. MELVILLE, gardener to the Earl
of Roseberry. It is a splendid black grape, re-
sembling the best round Hamburgs, with a fine
Frontignan flavor. It is called the "Champion
Hamburg."

THE three new roses which seem to have borne
off the palm at the various rose shows in England
are "Madame Fortado," "Reynolds' Hoie," both
brilliant pink, and "Louis XIV."

THE *Cottage Gardener*, in answer to some in-
quiries about the Lawton blackberry, says that in
England it is no larger nor better flavored than
the English blackberry.

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THE Commissioner of Agriculture has added a Chemical Bureau to his department. Dr. JOHN WETHERILL has been appointed Chief Chemist. "

Owing to the scarcity of cotton rags the price of has advanced full twenty-five per cent., and it is that it will be still higher. It has been our rule the *Genesee Farmer* at the very lowest price at which could be printed. Our profits have never exceeded five cents on a year's subscription. The advance would, therefore, at the old price entail a loss of papers sold. We know that our subscribers do not us to furnish the paper at less than it costs us, and have determined to increase the price of the paper cents a year. This is a trifle to each subscriber will enable us to publish the *Farmer* without loss.

The price of the *Genesee Farmer*, for 1863, will be cents a year to single subscribers, and in Clubs and upwards, fifty cents a year.

We feel confident that no intelligent farmer will to this small advance. We shall spare no effort make the *Farmer* still more worthy of the extensive patronage it has so long received from the intelligent agriculturists and horticulturists of the United States and Canada. We feel confident that those who have long stood by the *Genesee Farmer*, and used the influence to extend its circulation, will not object to a slight increase in price, when they know that it is absolutely necessary.

SOMETHING FOR THE LADIES.—Our lady readers materially add to the circulation of the *Genesee Farmer* by simply asking their friends to subscribe for it a time. Some special premiums are offered on this page of this number, to the ladies, which are certainly worth the little labor it will require to secure them your friends to subscribe at once, and then we will them the remaining numbers of this year, together with the whole of the next volume. The books will be prepaid by return mail.

TO OUR AGENTS.—We would call the attention of agents and other friends to the magnificent premiums offered to all who get subscribers for our volume. We have never before offered such large premiums.

One Hundred and Thirty-Seven Dollars in cash offered to those who send the highest lists before the 1st of February next. Those who do not take any of our Cash Prizes will be sure of the Special Premiums.

TO THE BOYS.—The long winter evenings are approaching, when you will have leisure to read. On the last page of this number you will find a list of books which you can obtain by a little effort in getting your neighbors and friends to take the *Genesee Farmer*. Ask them to subscribe now, and tell them they will then receive the remaining numbers of this year free. Let us see who will be the first boy to send in a Club.

THE *Gardeners' Chronicle* of September 20 says that its columns are full of articles on steam cultivation, and they hope to treat of it for several weeks to come. It adds that the real contest that the rival machines now have to wage is not with one another, but with agricultural *vis inertia*.

VALUE OF FARMS.—If we mistake not, we are entering on a real estate speculation. The abundance of paper money has a tendency to increase the value of all other commodities. Railroad and other improvements have already been greatly affected by it, and have advanced full 25 per cent. The next property to feel the effects of this abundance of paper money, will be real estate. During the Napoleon wars, the value of land in England advanced to such an extent as to inspire, in the words of the *Encyclopedia Britannica*, "all classes with agricultural mania." It is now difficult to insure property on good security at ordinary rates of interest. Loans are made on gold in New York at 3 per cent. It is easy to see that, *other things being equal*, the value of farms rises as the value of money declines. If money is worth \$50 per acre when money is worth 7 per cent, it ought to be worth \$100 per acre when money is worth 3½ per cent; for the interest on \$100 is the same as on \$50 in the other.

Again, money is not only abundant, but it is depreciated. A dollar bill to-day is only worth 60¢ in specie. This is an astounding fact, but fact. A gold dollar is worth \$1.33. A dollar's worth of silver, also, to be worth \$1.33, even if, like gold, it is *relatively unproductive*.

Case then stands thus: a farm of 100 acres that would pay 7 per cent on \$50 per acre, a year ago, was worth \$5000. The same farm would pay 3½ per cent, on \$100 per acre, or \$10,000; and in addition to this, we would get one-third for the depreciation of money that would now be paid for it, or \$3,333. So that a farm worth \$10,000 a year ago, would now be worth, on the basis we have assumed, \$13,333!

There are of course counteracting influences at work to offset the value of land, such as the high price of taxes, etc., but the increased value of our products more than offsets these drawbacks. Making the most liberal allowance for all depreciating influences, it is clear that the price of farming land ought to advance. The effect that can be urged to this argument is, that there is no certainty that the low rate of interest on money is permanent. This may keep land from advancing to the extent which the above figures would indicate, but we can be little doubt that we shall, before many years, witness a considerable rise in the nominal value of land and other property.

We then advise farmers to sell if land advances?—No means. If you sell and take pay in depreciated money you will have to buy again in depreciated money that you will be no better off. What we would advise every farmer to do, is to try to get out of debt. If money is depreciated. He might sell a part of his land and pay his debts with the money. In this way he can get out of debt, but in no other. The danger is, that instead of being economical and trying to get out of debt, farmers are tempted to extravagance, and when the reaction comes, as assuredly it will, they will suffer the pen-

NOTES ON THE WEATHER FROM SEPTEMBER 15TH TO OCTOBER 16TH, 1862.—The mean temperature of the first half of September was 64.2°, or only 0.3° above the mean for twenty-five years.

The mean of the last half was 60.6°, or 3.8° above that for so many years, and the average of the month was 62.4°, only 2° above that for twenty-five years. The highest at noon, in the last half, was only 80°, on the 23d; but the hottest day was 71.3°, on the 18th. The coldest morning, 42°, on the 25th, which was the coldest day. Generally very pleasant.

The rain of the last half was only 0.264 inches, and of the month was 2.364 inches. Of course the earth was rather dry and dusty. The rain on the 24th was 0.26 inches. But little rain or storm occurred within eight days on either side of the autumnal equinox, September 23d, very early in the morning. The moderate rain at the last of September was not worthy of the name equinoctial storm.

Fruits have been a little late, but have finely matured, so that apples and pears, peaches and apricots, plums and quinces, have abounded. The crop of grapes is great and fine, and some wine will be manufactured in this vicinity.

As the wheat harvest has proved to be much better than anticipated in England and France, the export of our cereals, though great, will be less than had been judged probable.

The weather has been fine, and much of it clear and beautiful through the month, like the two preceding months.

The New York State Agricultural Fair opened here on Tuesday, the last day of the month; weather cloudy; wind northeast; slight rain at times; rather unpropitious.

October began with moderate storm, some rain, and much cloudy, for four days, with a fall of water in that time of only 0.64 inch. The State Agricultural Fair continued through three of these days, and as the rain fell chiefly by night, it was not so injurious as was feared. Thousands on thousands attended, and the receipts exceeded \$11,000. The Fair was a success. The little storm could not be the equinoctial; we had no storm deserving of that name this year or last year. The pleasant week preceding was dry and dusty, with wind on some of the days. It would have been ruinous to the Fair, as the same causes were to the Fair of 1851 here.

On the evening of the 6th and morning of the 7th, there fell of water 0.49 inch, and very little rain. The 7th and 8th were hotter than any two days known in October here, the heat being 83° at noon of the 8th. A great change from the cold of the 6th, when the thermometer was 38° in the morning, and frost enough to kill leaves of delicate vegetables. Four-fifths of the fortnight has been cloudy and dull, with a mean temperature of 58°, or about the mean for twenty-five years. Indian corn is matured. Very good peaches are in market on the 15th of October. Grapes abound.

GENESSEE FARMER for October. J. HARRIS, Rochester, N. Y. Always useful, always welcome.—*British*

STEAM cultivation is attracting more and more attention in England. FOWLER, HOWARD & SMITH are the principal inventors. Steam plowing is destined to revolutionize English agriculture.

NOT SURE OF HIS IDENTITY.—Brother HOYT, of the *Wisconsin Farmer*, has spent the past summer in Europe, and as soon as he landed in New York, he heard that his wife was in the hands of the rebels, and hastened to her rescue. He had passed through so many changing scenes that he began to doubt his identity. "*Are we really we?*" he exclaims, even after he has been back sometime in his old familiar office. After a while, the world began to look more natural again. The Legislature was in session just as when he left five months ago, "squandering the people's money, throwing paper balls at empty heads, and pitching into everything that tends to the prosperity and honor of the State." He is convinced, and exclaims, "*This is Wisconsin, and we are we!*"

THE RURAL ANNUAL AND HORTICULTURAL DIRECTORY FOR 1863.—The *Rural Annual* for 1863 is nearly ready. We may safely say that a cheaper or more valuable work for farmers, horticulturists and every one interested in rural pursuits, is not published in our country. Not one of our readers should be without it. Price only 25 cents.

The seven previous volumes of the *Rural Annual* will be sent, prepaid, by mail to any address for \$1.40.

Agricultural Items.

PREPARED EXPRESSLY FOR THE GENESÉE FARMER.

At a sale of Holme Pierrepont rams, seventy-two animals brought £1,905.

The crop of barley is spoken of as very light this season throughout England.

Small pox has made its appearance among the sheep in England and causes much anxiety.

At the final sale of Mr. SANDAY's celebrated flock of Leicester sheep, 37 rams averaged \$63 each, 174 aged ewes \$28, and 75 shearling ewes \$35 each. The total sale amounted to £2,215 10s.

In England ladies compete at Agricultural Fairs in other things besides dairy products and domestic manufactures. At the last show of the Manchester and Liverpool Society a Miss GLASSFORD won the first prize for the best sample of white wheat.

The *Farmers' Magazine* speaks in the highest terms of the display of the products of the North American Colonies at the International Exhibition. The wheat is equal to any in the Mother Country. The barley is one pound in the bushel heavier, and the oats equal the very best produced in Haddington—the greatest grain market in the south of Scotland.

The *Journal d'Agriculture Pratique* speaks of the trial of McCormick's Automaton Machine in competition with several others. It gave great satisfaction, but M. BARREL doubts whether the automaton movement does not present very serious inconveniences, although it certainly is very ingenious.

THERE is quite a change coming over the agricultural sentiment as to the kind of animals which should take the prize at cattle shows. The *Farmers' Magazine*, in its report of the meeting at Battersea Park, speaks in the highest terms of the Swiss Dairy Cows, which are bred for milkers, and are not like the improved English breeds, only strong in "beef and tallow."

In the *Farmers' Magazine*, in a long article on "Improvements in Hay-making," a calculation is made into of the comparative cost of horse-power and labor. The balance in favor of the former is said to be two shillings per acre. The writer adds: "The saving of money is considerable, but the increased quality of the hay, the improved quality of the hay, the saving of time employed, are subjects of far more importance to the hay-farmer."

Inquiries and Answers.

MICE.—Last year the mice did great damage to the trees in this vicinity. Can you give any information to how it might be prevented. Also, is there any remedy for trees already girdled?—E. M. MORDLER, *Priest's county, C. W.*

HOW TO GET A FREE FARM.—You have spoken in the *Genesee Farmer* of three sections of land in Iowa, an actual settler can get a free farm from the States Government. I should be glad to know what these three sections are the best. I have two sections should be glad to get farms for them. What is the character of the land as to timber, nearness to market, &c.; and what is the proper course to take? I prefer purchasing the government land at \$2.50 per acre if it was in a settlement, rather than to go too far for it. JOHN McHENRY, *Madoc, Hastings county, C. W.*

Will some of our Western readers answer the above?

HOLLOW-HORN IN CATTLE.—There are cattle in this section that have the hollow-horn. I think it is owing to our severe winters, and want of care in housing the cattle and in not feeding them properly. If some of our correspondents know of a sure cure, it would be accepted. It is easy to tell when an animal has the disease: Take hold of the horn early in the morning, if it is cold the beast has the disease. Or you can tap the horn with a knife or spoon, and if it is low you will know it by the hollow sound.

The way I have cured it is to bore a hole into the horn pretty close to the head, and blow in some dry, fine pepper. The hole will soon begin to discharge, and will close up; but it must be opened and some saffron pepper blown in again.—A KENT FARMER, *Kent, C.*

The Markets.

OFFICE OF THE GENESÉE FARMER.

ROCHESTER, N. Y., Oct. 23, 1862.

Since our last report the price of Wheat has advanced 5 cents per bushel. Corn has also advanced 5c—the advance taking place during the last two weeks. Oats maintain their price, but there has been no advance. Barley is very high price, but there has been no advance. Barley is scarce and high—the price in New York being from \$1.25 per bushel. There has not been much change in the price of Rye. Beans are somewhat lower since the new crop has been harvested, but prices are still high and quite firm. Butter has advanced 8c per lb.; Cheese 1@2c.

Everything that can be exported, is in demand at high prices. Exchange on England is worth 145. In other words, an English pound, the real value of which is about \$4.34, is now worth in New York \$6.44! If you send a quantity of wheat, or corn, or butter, to England and it sells for £1000, instead of being worth only \$4840 in New York, as would ordinarily be the case, is now worth \$6440. The premium on the exchange amounts to \$1600. In other words, £1000 in New York is worth \$1600 more than it is in London.

In regard to future prices, it is not safe to predict. Wheat is now about 10c per bushel higher than they were at the same time last year. And last year the prices continued to advance till January. Such may be the case this year.

ROCHESTER, October 23.—White Wheat, \$1.25@1.35; Spring Wheat, \$1.00@1.10. Corn, 53@56c. Oats, 35@40c per bush. Oats, 40@45c. Rye, 60@65. Fells, 30@35.

NEW YORK, October 27.—White Wheat \$1.45@1.65; Red \$1.45. Mixed Western Corn 62@69c; White 70@80c. Rye 55c. Barley \$1.10@1.25. Oats 56@60c. Beans, choice rows, \$2.40@2.60; choice medium, \$2.10@2.30; mixed lots, \$2.175.
 Potatoes—Merceurs, \$1.75@2.00; Peach Blows, \$1.50@1.75; Keyes and Prince Alberts, \$1.40@1.50 per brl.
 Apples—Fall Pippins and Spitzenbergs, \$1.50@1.75; Greenings, \$1.25@1.50; common, \$1.00 per brl.
 Peas—Common, \$1.50@2.00; Seckels, Virgalicious, &c., \$3.00@4.00 per brl.
 Grapes—\$2.00@2.50 per bush.; Grapes, 5@6c per lb.
 Peaches—\$2.50@3.00 per brl.
 Hickory Nuts, \$1.50@1.50 per bush.
 Poultry—Turkeys, 12@14c, Fowls 10@12c, Chickens 12@15c; Ducks 75@1.00 per pair; Geese \$1.25@1.75 each; Partridges 75c@1.00 per pair.
 Eggs—18@19c per dozen.
 Butter—Choice State Firkins 23@24c; Pennsylvania and West-Reserve 16@18c; Grease Butter 10@11c per lb.
 Cheese—State, 1' @11c; Western, 8@9c.
 NEW YORK CATTLE MARKET.—At the last Cattle Market, there was no Cattle from Kentucky, (the State having been swept by rebels) and none from Canada, (on account of the large disallow on our money.) The average price was 7½c per lb., ranging from 6c to 8½c, according to quality.
 The Sheep Market was overstocked, and prices declined 25c per head. The high price of pel s. (\$1.43 each) alone keeps up the price. It is said that Mutton by the carcass has been sold as low as 2c per lb.
 Hogs have advanced, but it is thought the advance will not be maintained. Corn fed 4½@5½c per lb., live weight.
 Horses dull of sale, except such as are wanted by Government, at \$90@110 each.

TORONTO, October 27.—Fall Wheat 85@95c; Spring, 75@82c. Rye, 75@82c. Rye, 56@60c. Oats, 40@45c. Peas, common, 55c; Black-eyed Marrow-fals and Prussian Blues, 60@65c. Potatoes, 87½@50c. Apples, 60@80c per brl. Fresh Butter, 19c. Eggs, 9@12 per doz. Chickens drawn 35@40c and kegs, 40@50c per pair. Turkeys, 40@60c each. Hay, \$20 per ton. Straw, \$11 per ton. Wool, 55c. Pelts, 70@80c each.

PHILADELPHIA, October 24.—White wheat, \$1.55@1.65; red, 2@1.45. Rye, 50@55c. Corn, 70@72c. Oats, 40@45c. Clover Seed, \$5.75@6.00. Timothy Seed, \$1.75@2.00. Flax 1, \$2.25 per bush.

BUFFALO, October 27.—White Wheat, \$1.26@1.30c; red, \$1.10. Corn, 45@50c. Barley, \$1.04@1.06. Peas, 75c for Canadian Beans, \$1.50@1.75. Timothy Seed, \$1.25@2.00. Clover 1, \$4.50@5.00. Flax Seed, \$1.62½.

CHICAGO, October 27.—Wheat, No. 1, 94@96c; No. 2, 87@88c. No. 3, 81@84c.

CINCINNATI, October 27.—White Wheat, \$1.20@1.25; red, \$1.10. Corn, 35@40c. Oats, new, 50@52c; Old, 56@57c. Barley, 60@62c. Barley, Spring, \$1.20@1.25; Fall, \$1.30@1.35. Rye, \$1.12@1.13 per ton.

ST. LOUIS, October 22.—Fall Wheat ranges all the way from \$1.18 per bush. Corn, 50@55c. Oats, 60c. Barley, \$1.23@1.45. Rye, 45@50c.

Literary Notices.

DEY'S LADY'S BOOK—November. Philadelphia: L. A. OBER. Price, \$3.00 per annum.

This monthly has come again, with the same marvelous variety in its contents which has characterized the nine other numbers of the past year. It is invaluable to ladies living in the country. It not only gives the fashions for dresses, &c., but it gives plain directions for new stitches in knitting, crochet and tatting, all accompanied by engravings which so illustrate the matter that it is impossible not to succeed in learning any or all of them. In this number the patterns for braiding, both for ladies' and children's dresses, are remarkably beautiful; and the directions for making a carriage blanket, after an entirely new design, are well worth the price of the book. There is something for every member of the family in each number—pictures that children can copy on their slates, and new games for the older ones to try; receipts for the housekeeper; directions for cooking the little trifles for invalids; and book notices, containing every new work published, whether grave or gay, light or solid. The articles are mostly tales, more or less interesting, but never otherwise than strictly moral, and generally there is some talk about manners and how to grow them. This month the first article is "A Water Garden," which is well worth reading; and we hope that its hints will be taken.

THE ATLANTIC MONTHLY—October. Boston: TICKNOR & FIELDS. Price, \$3.00 per annum.

This is the best of American monthlies, and it employs the first talent of the country. Its contributors are AGASSIZ, HOLMES, Miss Prescott, and others like them, whose names alone give an interest to any article. In the October number, "Autumnal Tints," by THOREAU, is one of those essays which show an exquisite appreciation of Nature in all her varied forms, and teach careless people, who stumble over all the wondrous beauties which lie in their paths, how much of pleasure they lose every day of their lives. We hope that in the hands of such excellent publishers as TICKNOR & FIELDS, whose imprimatur gives character to all they send out, that the magazine will be as successful as it is worthy of success.

HARPERS' WEEKLY. New York: HARPER & BROS. Price, \$2.50 per year.

This pictorial has become a necessity, now that there is so much occurring every day that we all want to know something about, and localities are becoming famous, the names of which had never been heard of out of their own State. The portraits of distinguished and of notorious people are generally very good, and there is always one comicality that has an idea in it. A story called "No Name," by WILKIE COLLINS, is being published in its columns.

ADVERTISEMENTS.

S. M. PETTENGILL & CO.

No. 37 Park Row, New York, & 6 State St., Boston, are our Agents for the GENESSEE FARMER in those cities, and are authorized to take Advertisements and subscriptions for us at our Lowest Rates.

MOLE PLOWS—By J. DUNHAM, Ithaca, N. Y. 3—tf

THE RURAL ANNUAL—For 1856, '57, '58, '59, '60, '61 and '62 will be sent, prepaid to any address for \$1.40.

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A BEAUTIFUL MICROSCOPE, MAGNIFYING SMALL objects 500 TIMES, for 28 CENTS (coin preferred.) FIVE of different powers for \$1, MAILED FREE. Address F. H. BOWEN, Box 220, Boston, Mass.

nov1f

WANTED,

A PRACTICAL FARMER—Who has had experience in the culture of fruit, and can bring good references, as to honesty, industry and capacity. M. F. REYNOLDS. Rochester, N. Y., November, 1862.

FOR SALE.

ONTARIO VINES—WARRANTED TRUE TO NAME—and not the Union Village. Having fruited both varieties this year, I am satisfied they are entirely unlike. Price, \$2.00 for 2-year old vines; \$12.00 per dozen.

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I HAVE NOW ON HAND AND FOR SALE, HICKOK'S celebrated HAND CIDER MILLS. Parties wishing one of the best Mills in the country, will please call and examine them, at the Genesee Seed Store, 17 South St. Paul st., Rochester, N. Y.

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J. RAPALJE.

CARRIAGE HORSES WANTED.

DAPPLE GRAY, LONG TAILS, HEADS WELL UP; LONG range in action; weight, eleven to twelve hundred; age, seven to eight years, 16 hands high. Any person having a sound pair of horses for sale, answering the description, will please address GEO. A. PRINCE, Buffalo, N. Y.

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CHOICE NATIVE AND FOREIGN GRAPE VINES.—LENK & CO. OFFER FOR SALE A LARGE stock of Native and Foreign Grape Vines, including all the rarest and most valuable varieties. Send for a Price List. Address LENK & CO., Humboldt Nurseries, Toledo, Ohio.

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And restore the Union and preserve the Constitution. It criticizes with freedom whatever measures are not adapted to the accomplishment of these ends; but its steady purpose, from the beginning of the war, has been, and will be, to uphold the hands and strengthen the heart of the Government, while it puts forth its energies to protect us against the most unholy rebellion that ever disturbed the peace of any country.

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IN ALL CASES, THE NEW SUBSCRIBERS must be those who have not in their own or others' names, taken the paper during the past year.

To Ministers and Others.

The Annals of the American Pulpit, by William B. Sprague, D. D., are comprised in seven large octavo volumes, viz:

Congregational, ...	2 vols.
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They contain the biography of more than a thousand ministers, and a history of each denomination, with a statement of its doctrinal views, making a complete library of religious biography and history. The lives of these ministers are interspersed with memorable anecdotes and incidents, and illustrated by letters from distinguished statesmen and clergymen, rendering the volumes an inexhaustible source of instruction and entertainment.

The publishers' price for the seven volumes is \$18.50. We will furnish the whole set to the order of any person who will send us TWELVE new subscribers with the payment for one year, or any two volumes for four new subscribers, or any one volume for two new subscribers. In all cases the money (\$2.50 for each subscriber) must be paid in advance.

To Farmers and Others.

We will furnish the whole set of the following works to any one who will send us fifteen new subscribers—with payment of \$2.50 in advance on each for one year—viz:

American Farmer's Encyclopedia, ...	\$4.00
Allen's (R. L.) American Farm Book, ...	1.00
Allen (J. Fisk) on the Culture of the Grape, ...	1.00
Barry's Fruit Garden, ...	1.25
Boussingault's Rural Economy, ...	1.25
Bridgeman's Young Gardener's Assistant, ...	1.50
Buist's American Flower Garden Directory, ...	3.00
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To any one sending us ten new subscribers, and advance payment for each one year, we will send the Farmer's Encyclopedic Farm Record, and any five other books on the list—or the entire list, except the Encyclopedia and Record.

For five new subscribers, with payment in advance, we will send the Farmer's Encyclopedia and Farm Record, or any other five books in the list.

For four new subscribers and payment, the Encyclopedia and any book less than \$3.

For three new subscribers, the Farm Record and any dollar book.

For two new subscribers, any two books in the list costing less than \$3 each. And for one new subscriber, any book costing less than \$3 on the list.

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Every evening devoted to canvassing may secure one or more of these volumes.

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FARMERS,

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out it they may plow and reap as their grandfathers did before them, but they cannot, without such instruction, intelligently, methodically, or accurately, set about the successful prosecution of that especially close business, Modern Agriculture. There is one institution in the country, and but one, where students are thoroughly trained, as well as theoretically taught, where eight to twelve weeks attendance secures a perfect knowledge of every legal form of procedure in every known branch of enterprise, and a ready aptitude or skill in practical business matters.

For information, address the Principal of "Eastman's Modern Mercantile College," Rochester, N. Y. nov-31

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series of the *Rural American*, to be published at Utica, N. Y., semi-monthly, at sixty cents a year. Regular issue from January 1st, 1863. A splendid paper—purely Agricultural and Horticultural—adapted to every State in the Union. Commences very large, and a Fifty-Cent Concord Grape Vine free every subscriber, which is the best early grape in existence. My travelling agents sweep towns of nearly every farmer them—no difference on account of the war. Full details given in a specimen paper, soon to be ready, which is free to all.

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This First Premium Wine Grape has been thoroughly tested in Lat. 43° for 20 years by many cultivators and found to be hardy, vigorous and productive; it makes a high colored large rich wine. Strong vines sent by mail for 50 cts. each. Large deduction by the quantity. From \$5 to \$10 may be made by any local agent without leaving the home. Agents wanted. For liberal terms, and Catalogues of the Lyons Nurseries, address

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SHROPSHIRE AND SOUTH DOWN DRAFT SHEEP FOR SALE.

Shropshire Rams,

Shropshire Ewes,

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South Down Ewes.

Inquire at 16 and 18 Chambers street, New York, of
oc-31 JACOB LORILLARD.

20,000 DELAWARE VINES, 200,000 CONCORD VINES—strong, healthy and cheap. Send for Catalogue of Prices. Address WM. PERRY & SON, Bridgeport, Conn.

sep31

TO GROWERS OF SPRING WHEAT.

CHAPPELL & SPRAGUE,

CHESTER, N. Y., SOLE MANUFACTURERS OF

THE BEST MACHINE EVER INVENTED FOR



SEPARATING OATS, BARLEY, &c., FROM WHEAT

"BOOTH'S COMPOUND SHAKER."

OR SEPARATING OATS, BARLEY, AND OTHER FOREIGN SUBSTANCES FROM WHEAT, it is the BEST, SIMPLEST, SAFEST and only Machine ever invented, that thoroughly accomplishes the desired end. Farmers can always get from five to ten cents per bushel more for their Wheat if properly cleaned. Cleans from 150 to 200 bushels per day, and a boy can operate it, it is exceeding

LOW PRICE

fits within the reach of every Farmer. On receipt of EIGHT DOLLARS, a Machine (with printed instructions for operating) will be shipped as directed. Those wishing to engage in the use of the Machine and purchasing by the dozen, will have a discount made to them. All orders to be addressed to CHAPPELL & SPRAGUE, Rochester, N. Y., Sole Manufacturers.

ed-6t

FARM FOR SALE!

ADJOINING THE DEPOT—In Warren, Penn., of seventy-five acres of land, with a new Frame House, nearly all shed below in a good substantial manner, with a good Stone Barn under the same. About twenty-five acres under improvement, with seven acres more which might be put into wheat the next fall with trifling expense. It is first rate wheat land, and well supplied with pure water from never-failing springs. For a man who is desirous of going into the fruit-growing business, location cannot be surpassed in Western Pennsylvania, having the advantage of a home market with the highest prices. One-half of the purchase money may lay for one or two years, if desired. I can be seen in Erie every day (Sundays excepted) from 11 A. M. till 3 P. M., and in Warren from 6 1/2 P. M. till 7 1/2 A. M. Any communication of inquiry directed to Warren, Penn., will be promptly answered.

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The Original Howe Sewing Machine!

RECENT and important improvements having been put to this Machine renders it now the most perfect before the public, and persons at a distance can order a Machine with a guarantee of its prompt and safe delivery, and that they will be able to manage it to their entire satisfaction. No more breaking needles! No more missing stitches! No trouble in making any garment, however delicate or heavy, on the same Machine, either cambric, cloth, or leather. No person should think of purchasing a Sewing Machine without first seeing this—the latest and greatest triumph of the original inventor of the Sewing Machine.

Send for a Descriptive Catalogue of styles and prices. A responsible Agents would be dealt with liberally. Address THE HOWE SEWING MACHINES,

July, 1862.—21t

437 Broadway, New York.

TO FARMERS AND LUMBER DEALERS.

SCRIBNER'S READY-RECKONER AND LOG BOOK is the most popular and saleable book ever published on that subject. The sales now amount to over 300,000 copies. The calculations are so arranged as to be easily understood, and can be relied on with perfect safety. It is designed expressly for Boat-builders, Ship-builders, Lumber Merchants, Mechanics, and contains full and correct measurement of scantling, boards, plank, cubical contents of round and square timber, saw-logs, wood, tables of wages by the month, board, rent, interest tables, &c., &c.

No farmer, lumber merchant or business man should be without a copy, as the price is nothing in comparison to its value. For twenty-five cents I will send a book to any address free of postage.

BOOKSELLERS AND BOOK AGENTS WANTING to interest themselves in the sale of the book in Lumber Regions, can have them upon such terms as will make it an object to push the book, and can make money by so doing. Address

GEO. W. FISHER, Bookseller and Stationer, Rochester, N. Y.

nov2t

THE CHILSON FURNACE.

THIS celebrated Furnace, which has been so extensively used in public and private buildings, and which has stood the test of experience after various attempted imitations, is still for sale in Rochester. The different sizes are fitted for all classes of buildings, from the cottage to the church. They can be purchased at lower rates than ever before, and any one desiring to manufacture these Furnaces can, on short notice, be furnished with a full set of iron patterns for all the different sizes.

Further information can be obtained from the Editor of this paper. sep—tf

FOR SEWING MACHINES.

JONAS BROOK & BROTHERS'

PRIZE MEDAL SPOOL COTTON,

200 or 500 yard spools, White, Black, and Colored.

FOR MACHINES, use BROOK'S PATENT GLACE for upper thread, and BROOK'S SIX COIL RED TICKET for under thread. Sold by all first class dealers in city and country; also in cases of 100 dozen each, assorted numbers, by WM. HENRY SMITH, Sole Agent, 36 Vesey street, New York. Ja—1y

Back Volumes of the Genesee Farmer.

WE have the back numbers of the *Genesee Farmer*, handsomely bound, for the years 1846, 1847, 1848, 1849, 1853, 1855, 1856, 1857, 1858, 1859, 1860 and 1861. They will be sent free to any address for \$1.00 each. The last six volumes, from 1856 to 1861 inclusive, handsomely bound, will be sent free by express, or by mail postage paid, for \$5.00. Address

JOSEPH HARRIS,

Publisher and Proprietor of the *Genesee Farmer*, Rochester, N. Y.

FARMERS AND OTHERS that wish to obtain quickly, in cash, the highest market prices for their farm produce, must send all their butter, cheese, lard, eggs, poultry, hams, game, vegetables, green and dried fruits, flour, grain, seeds, &c., to

JOSIAH CARPENTER,

Produce Commission Merchant, 32 JAY STREET, NEW YORK.

He returns the cash in ten days after receipt of goods, makes advances on consignment, or buys for cash; and sends a weekly "Price Current" to all shippers. oc2t

CLOVER HULLING AND CLEANING MACHINES.

HULLS AND CLEANS FROM THREE TO TEN BUSHELS per hour. Late improvement, patented March 25, 1862. Description of this great machine sent gratis on application. Made and for sale only by M. H. MANSFIELD, Patentee, Ashland, Ohio. sep-3t

WOOD CUTS FOR SALE.

WE will sell Stereotypes of the Wood Cuts used in the *Genesee Farmer* and *Rural Annual* and *Horticultural Directory*. A book containing Impressions of over Seven Hundred of these cuts will be sent to those wishing to purchase on the receipt of 50 cents. The book contains an index, showing where descriptions of the cuts will be found.

Address

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AGENTS WANTED AT ONCE

FOR A COMPLETE HISTORY OF THE

REBELLION—To be issued by The Auburn Publishing Co. Prospectus and Descriptive Circulars sent free to those who write to E. G. STORKE, Auburn, N. Y.

THE
GENESEE FARMER
FOR 1863.

A GREAT PREMIUM LIST!

BOOK PRIZES!

SEED PRIZES!!

CASH PRIZES!!

All Prizes and No Blanks!

We spare no pains to make the GENESEE FARMER worthy the patronage of every farmer and fruit-grower in the United States and Canada. It has already a very large circulation, but there is no reason why it may not be doubled during the coming year. All that is necessary, is for our friends to take hold of the matter in their respective localities, and present the claims of the GENESEE FARMER to their neighbors and friends. As some inducement for them to act as agents in getting subscribers, we offer the following premiums:

AND FIRST TO THE LADIES.—There are some ladies who already act as agents for the GENESEE FARMER, and those who do are always successful in getting subscribers. We want more agents among our farmers' sons and daughters. We offer the following:

SPECIAL PREMIUMS TO THE LADIES.

1. To every lady who sends us before the first of next January, *five* subscribers for 1863, at 60 cents each, we will send, pre-paid, by return mail, a copy of Mrs. HALE'S Modern Cookery Book, price \$1; or a dollar package containing sixteen varieties of the choicest and most-beautiful flower seeds, such as we know every lady would like to have growing in the garden.

2. To every lady sending us *fifteen* subscribers at 60 cents each, before the first of next January, we will send, prepaid, by return mail, a beautiful copy of the Rural Poetry of the English Language; price \$3.

PREMIUMS FOR BOYS.

1. To every boy who shall send us before the first of January, 1863, *three* subscribers, at 60 cents each, we will send, prepaid, by return mail, a copy of the Farmers' Practical Horse Farrier, price 50 cents; or a copy of LIEBIG'S Animal Chemistry.

2. To every boy sending us *four* subscribers, (as above,) we will send, prepaid, by return mail, a volume of the GENESEE FARMER for 1856, neatly bound in stiff paper cover: price 75 cents.

3. To every boy sending us *five* subscribers, (as above) we will send, prepaid, by return mail, a copy of ROGGE'S Scientific Agriculture, or a volume of the GENESEE FARMER for 1860, handsomely bound in cloth. The wholesale price of the latter is \$1, and there is no cheaper work.

4. To every boy sending us *six* subscribers, (as above,) we will send, prepaid, by return mail, a copy of Everybody's Lawyer, or The Horse and his Diseases: price \$1.25.

5. To every boy sending us *eight* subscribers, (as above,) we will send, prepaid, by return mail, a complete set of the RURAL ANNUAL and HORTICULTURAL DIRECTORY for eight years—(1856-7-8-9, '60, '61, '62 and '63.) Price 25 cents each. No young farmer or gardener should be without a complete set of this work.

6. To every boy sending us *fifteen* subscribers, (as above) we will send, prepaid, by return mail, a copy of the Rural Poetry of the English Language; price \$3. (This is a most beautiful and appropriate book for a Christmas or New Years present.)

7. To every boy sending us *twenty-five* subscribers, (as above) we will send, prepaid, by express, the last six volumes of the GENESEE FARMER, (1856-7-8-9, '60 and '61.) handsomely bound in cloth. The price is \$1 each, and there is no cheaper work published. No young farmer could have a better work in his library.

It will be seen that the above prizes are for subscribers at *25 Cents each*. If sent in during the present month, (November) the last two numbers of this year, (November and December) will be sent to each subscriber *free*. These prizes are offered only to the ladies and boys, the object being to get them interested in the circulation of the FARMER.

PREMIUMS FOR EVERYBODY,

At our Lowest Club Rates of 50 Cents each.

1. To every person sending us *six* subscribers, at 50 cents each (\$3.00) we will send, prepaid, by return mail, a copy of the RURAL ANNUAL for 1863. 25 cts

2. To every person sending us *ten* subscribers at our low club rates of 50 cents each, (\$5.00) we will send a copy of the GENESEE FARMER for 1863, and also a copy of the RURAL ANNUAL for 1863, (prepaid, by mail). 85 cts

3. To every person sending us *sixteen* subscribers at 50 cents each, (\$8.00) we will send, prepaid, by mail, a package of flower and vegetable seeds, containing twelve papers of choice varieties, price \$1, or a handsomely bound volume of the GENESEE FARMER for 1860; price \$1. And also a free copy of the FARMER and RURAL ANNUAL for 1863. \$1.85.

4. To every person sending us *twenty* subscribers, at 50 cents each, (\$10.00) we will send, prepaid, by return mail, a copy of Everybody's Lawyer, or The Horse and his Diseases, price \$1.50, and also two *free* copies of the FARMER for 1863. \$2.45.

5. To every person sending us *twenty-four* subscribers, at 50 cents each, (\$12.00) we will send either of the above books and dollar package of vegetable and flower seeds, and a *free* copy of the GENESEE FARMER and RURAL ANNUAL for 1863. \$3.10.

Those getting higher clubs than the above, will probably take some of the following CASH PRIZES. If not, books and seeds, desired, will be sent in the same ratio:

CASH PRIZES! CASH PRIZES!! CASH PRIZES!!!

\$50—TO THE PERSON sending us the *highest* number of subscribers, before the 15th of February, 1863, our lowest club rates of 50 cents each, we will send FIFTY DOLLARS in cash.

\$30—TO THE PERSON sending us the *second highest* number, (as above,) we will send THIRTY DOLLARS in cash.

\$20—TO THE PERSON sending us the *third highest* number, (as above,) we will send TWENTY DOLLARS in cash.

\$15—TO THE PERSON sending us the *fourth highest* number, (as above,) we will send FIFTEEN DOLLARS in cash.

\$10—TO THE PERSON sending us the *fifth highest* number (as above,) we will send TEN DOLLARS in cash.

\$5—TO THE PERSON sending us the *sixth highest* number, (as above,) we will send FIVE DOLLARS in cash.

\$4—TO THE PERSON sending us the *seventh highest* number, (as above,) we will send FOUR DOLLARS in cash.

\$3—TO THE PERSON sending us the *eighth highest* number, (as above,) we will send THREE DOLLARS in cash.

☞ The number of subscribers, and the names of those sending the largest clubs, will be announced in the March number of the FARMER, and the cash immediately paid.

Clubs are not required to be at one post-office, or sent to one address. We send the papers wherever the members of the club desire. It is not necessary that the club should be sent in all at one time. Names can be added at any time, and all that are sent in before the fifteenth of February will be counted in. Send on the names with the money as fast as they are obtained.

☞ Money may be sent by mail at our risk, you need not register the letters.

Address

JOSEPH HARRIS,

PUBLISHER AND PROPRIETOR OF THE GENESEE FARMER,
November 1, 1862. ROCHESTER, N. Y.



THE Genesee Farmer

PRACTICAL AND SCIENTIFIC FARMERS OWN PAPER

VOL. XXIII, SECOND SERIES.

ROCHESTER, N. Y., DECEMBER, 1862.

No. 12.

CAN WE COMPETE WITH THE WEST?

ENGLISH farmers thought they could not live without "Protection." "Free Trade" in grain, they said, "would bring them into direct competition with American farmers, who, beside having rich, new land, had no rent, tythes or taxes to pay." They said and thought that such competition would prove their ruin, and the ruin of the country. Long was the struggle and bitter the strife which wrung from the agricultural interest an unwilling assent to the removal of duties on imported grain. The manufacturing interest triumphed, and the farmers for a while suffered nearly as much as they had anticipated; but they soon adapted themselves to their altered circumstances, and to-day English agriculture is, on the whole, as profitable as it was under protection.

This has been effected by a change in the system of agriculture. They were brought into direct competition with other grain-growing countries, but they had still one of the best markets in the world for the sale of butchers' meat. They turned their attention more to the raising and fattening of cattle and sheep, and an unexpected result followed. They not only had more meat to sell, but the fattening stock so increased the size and richness of their manure heaps that they obtained as much or more grain from the smaller area than from the larger breadth of land formerly sown!

The same result has attended the growth of the beet for sugar in some districts of France. Much land was devoted to this crop, but the remaining land was so enriched by the refuse beets fed to cattle, that it produced more than if the whole land had been devoted to grain.

Can we compete with the grain-growers of the West? The English farmers, contrary to their fears, have not been ruined by being brought into competition with other countries, partly because of the expense attending the conveyance of grain, and partly because they turned their attention to

producing beef and mutton, in which they had still very little competition from foreign countries. We have to compete with the West. Can we do so successfully?

Some farmers say we can not; but we think they are mistaken.

The high freights on grain give us all the protection we need. It costs thirty-four cents a bushel to send corn from Chicago to New York, and the farmer living in the interior of Illinois can not get his corn or wheat to Chicago for less than it costs us to send it to New York; so that we receive full thirty-four cents a bushel more for grain than the farmers living on the prairies of Illinois. How they manage to raise corn and wheat and sell it at such prices is more than we can understand. We get little enough here, but still we get thirty-four cents a bushel more than they do; and it must be remembered that every cent per bushel we get over and above the cost of production is clear profit.

In the production of grain, therefore, we need not fear competition with our brethren at the West. But how is it in the production of beef, pork, mutton, butter, cheese and wool? The freight on a hundred dollars' worth of these articles is very much less than on a hundred dollars' worth of grain. *Other things being equal*, therefore, they are far better able to compete with us in the production of these products than in the production of grain; and the tendency of such a condition of things is to force the Western farmers to raising beef, pork, mutton and wool. So far as the cost of sending these to market is concerned, they have, as compared with grain, a decided advantage over us.

This leaves us in rather an embarrassing position. If the competition was in producing grain instead of meat, wool, &c., we could readily meet it. The increased production of meat and wool would enable us to make our land richer; but as

it is, the more grain we grow and sell, and the less stock we keep, the poorer our land will become.

The land at the West, too, is generally believed to be naturally richer than ours; and if this is the case, it adds another drawback to our position; for while the system of agriculture which would seem to be most profitable to us renders our poor land still poorer, that which is best for the West renders their rich land still richer. From what we have seen of the West, however, we think the fertility of the soil has been exaggerated. It will wear out sooner than ours, and will, in a few years, need manure quite as much to keep up its productiveness.

Admitting all this, however, the fact remains that we are at present subjected to a severe competition in the production of beef and pork; and it would seem that wool will soon be added to the list. We have decidedly the advantage in producing grain; but to raise the largest crops we need manure, and to obtain this we have to keep stock; and here we are met with severe competition from the West. What should we do? There are two or three ways open to us:

1st. We must, more than ever before, realize the fact that "*tillage is manure*"—that the literal meaning of the word "manure" (*manus*, hand, and *owrer*, to work,) is hand-labor. To manure the land is to hoe, to dig, to stir the soil, to expose it to the atmosphere, to plow, to harrow, to cultivate. The ancient Romans made Stercutius a god because he discovered that the droppings of animals had the same effect in enriching the soil as to hoe it. We can leave the modern method of manuring land to our Western farmers, while we go back to the original method of stirring the soil. Mr. LAWES has raised a good crop of wheat *every season* for over twenty years on the same land by simply keeping it thoroughly clean by two plowings in the fall and by hoeing the wheat in spring by hand. The Rev. S. SMITH, of Lois-Weedon, has for years raised successive crops of wheat by a process of trenching the land with a fork and by hand-hoeing. We do not advocate this system, but the *principle* is applicable to our case. We *can* manure our land by better tillage.

2d. We can be more than ever careful in saving all the refuse matter on the farm and in composting it. We can avail ourselves of peat-deposits and of lime and of plaster, and of all other natural fertilizers.

3d. We can use more or less artificial manures. The time has not yet come, perhaps, when these

can be used with profit, but that time will assuredly arrive, and our farmers—and especially our farmers' sons—should study the chemistry of manures if they would avail themselves of the advantages to be derived from an intelligent use of the various fertilizers which science brings to our notice.

WHEAT IN WESTERN NEW YORK.

"The extent of wheat now cultivated in Western New York is fast reaching the maximum amount of former years, when it was the granary of the West."

So says the editor of the *Prairie Farmer*—and he is right. We can not help feeling some degree of satisfaction as we recall the position taken by the *Genesee Farmer* in the disastrous midge years of 1856-7. Some of our so-called agricultural papers, and not a few of our farmers, advocated the abandonment of wheat culture, while the writer labored hard to induce our wheat-growers to persevere. We assured them that the midge was no new thing—that it had long been known in England and Scotland, but did comparatively little damage because farmers kept their land in high condition and raised heavier crops. We recommended, not the abandonment of wheat culture altogether, but the sowing of it only on such land as was naturally dry or had been well underdrained, and which could be got into the best condition previous to sowing. The great point we showed was to get wheat into flower earlier in the season than the midge made its appearance. The midge did the most damage on low land, where the wheat was late, and we predicted that the evil would prove a blessing by compelling us to underdrain, and to make the land richer and cultivate it more thoroughly. *All this has been accomplished.* Good farmers need no longer fear the midge. But we can not too often call attention to the means necessary to avoid injury from this insect depredator. They are, in brief:

1. Select the earliest and driest land; and if it is not naturally dry, underdrain it. And it must be borne in mind that much land which *appears* dry is still in need of underdraining. All land which contains *stagnant* water at any season of the year needs underdraining to enable it to produce the earliest and best wheat. High, rolling land often needs draining as much or more than low, level land. Dig a hole three feet deep and see if water remains in it; and if so the land needs underdraining. Good seed, good culture, early sowing and the best of treatment will all prove of

comparatively little value if this fundamental operation of underdraining is neglected.

2. Sow only as much land to wheat as can be made rich enough to insure a vigorous growth. If the midge destroys five bushels of wheat per acre, and your land is only rich enough to produce ten bushels, the midge will leave you only five bushels per acre; but if your land is rich enough to produce thirty bushels, and the midge eats five bushels as before, you have still twenty-five bushels per acre left. The midge destroys as much in both cases, but in one *half* the crop is consumed and only *one-sixth* in the other.

3. Sow as early as possible without increasing the liability of injury from the Hessian fly. The Hessian fly deposits its eggs in the young plants in autumn, and proves more injurious to early sown than to late sown wheat. The midge, on the other hand, deposits its eggs in the ear of wheat when it is in flower, and the earlier the wheat is the more likely is it to escape. As to the time of sowing, therefore, we have to avoid the Hessian fly on the one hand and the midge on the other. In this section, if we sowed as early as the 20th of August, the Hessian fly would most likely prove injurious; and if as late as the 20th of September, the midge would almost certainly make havoc in the crop. The first week in September is now considered the best time to sow in this vicinity.

4. Select the earliest varieties, for the reasons above named. The Mediterranean generally escapes on account of its earliness. Its drawbacks are its dark color, (though it has greatly improved in this respect,) and its liability to lodge when sown on rich land. The Soules' is the most popular white wheat we have at present. Under favorable conditions we may reasonably expect a good yield.

These are the four principal points to insure success in wheat growing. They are precisely those which we advocated when the midge first made its appearance, and the experience of our best farmers has determined their correctness.

SALT, SULPHUR AND BACON FOR SHEEP.—A sheep-keeper in Indiana says he promotes the health of his flock by a free use of salt, and an occasional use of sulphur mixed with the salt or with feed, and two or three times a year he gives the sheep some old bacon, which is cut up and mixed with the salt. Another sheep-keeper thinks tar better than the fat bacon, though it is more work to administer it, for each sheep has to be caught and its mouth opened and the tar put in with a paddle. Another one thinks resin, in powder, mixed with salt, or meal, or grain, fed to sheep, just as good as tar, and a great saving of labor.

IRRIGATING GRASS LAND.

We hail with the greatest pleasure every successful attempt to introduce the practice of irrigation into this country. We have witnessed its beneficial effects so frequently abroad, and are so well satisfied that it would add greatly to the production and profit of thousands of American farms, that we feel justified in frequently calling the attention of the intelligent readers of the *Genesee Farmer* to the subject. SANFORD HOWARD, of the *Boston Cultivator*, who, both from his experience as a practical farmer and from his visits to Europe, is eminently qualified to speak in the matter, has recently visited the farm of Mr. CLARK RICE, of Brattleboro', Vt., where some seventy acres of grass land is irrigated in the best manner. The water is applied only to the grass crop, and when the land is under cultivation, as a portion of it is every year, the water is shut off. Other portions are permanently in grass, and these are irrigated every year.

The farm is situated on quite a high hill, near the summit of which is a basin comprising several acres, which was formerly a boggy swamp, and the source of a small stream which meandered through a portion of the farm. By throwing a dam a few feet in height along the lower edge of the swamp, a reservoir was formed which holds a large quantity of water. The water, soon after it leaves the reservoir, is divided into several main channels by which it is carried to different fields, where it is made to flow in thin sheets over the grass. It is the common practice to let the water on in spring before the snow is gone; sometimes the snow is several feet in depth over the whole surface when the water is turned on. The effect of the water is to melt the snow next the ground, slowly, so that after a while there is a space between the snow and the grass. The water also thaws the ground—which sometimes, when the snow falls early, is but little frozen—and the grass soon starts, so that by the time the fields are bare they become beautifully green. The water is kept running on the grass until about two weeks before haying is commenced. As soon as the first crop of grass has been cut, the water is flushed over the ground, and the gray stubble is soon hidden by a luxuriant second growth. Most of the irrigated land produces from a ton and a half to two tons per acre at the first cutting, and an after-growth equal to half a ton per acre, which is sometimes mowed and sometimes fed off.

*Mr. RICE has irrigated more or less for twenty-

five years, and he finds no diminution in the crop, while the quality of the grass improves. The large crop of grass from the irrigated meadows enables him to sell considerable quantities of hay, and yet have enough left to make manure sufficient to keep up the fertility of the farm.

KEEP THE SHEEP AT HOME.

THE high price of pelts is inducing some farmers to sell their sheep. We think they err in so doing. Mutton is now comparatively low. The only reason why sheep are high is on account of the demand for wool; but as there is little reason to anticipate any reduction in the price of wool before the next clip comes in, and as there is every reason to believe that mutton will be much higher next spring than it is at present, we think it far better to keep and feed the sheep during the winter than to slaughter them now.

Fattening sheep in winter, if properly attended to, is one of the most profitable branches of American agriculture. It is so not because the sheep increase very much in weight, but rather because of the enhanced price of mutton in the spring. If we had to depend merely on what the sheep gain in weight, it would hardly pay to fatten them in winter. The increase in mutton would scarcely pay for the amount of fodder consumed. Thus a sheep, weighing 100 lbs., would eat 3 lbs. of hay per day, or its equivalent, and increase say $1\frac{1}{2}$ lbs. per week. From the middle of November until the middle of March, such a sheep would eat 336 lbs. of hay; and all that we get to pay for it is 24 lbs. of mutton, worth, at 6 cents per lb., \$1.44, or \$8.57 per ton for the hay. But supposing such a sheep to be now worth 3 cents per lb. live weight, and next March 5 cents per lb., we should get for the 336 lbs. of hay consumed \$3.20, or over \$19.00 per ton. This is the proper light in which to consider the question of fattening sheep in winter, and we feel confident that it will be found profitable.

"Keep the sheep at home," then, we repeat. Do not force them upon the market, and thus crowd down the price of mutton, which is too low already. Mutton is now frequently sold by the carcass in New York at 3 cents per lb. True, *sheep* command high prices, but it is on account of the high price of *pelts*, and not because *mutton* is in demand.

We have said nothing about the value of the manure, because, as yet, many farmers do not take this into consideration. Fattening sheep in winter

will pay without reckoning in the manure; but it is clear that in estimating the comparative profits of selling the hay or feeding it out on the farm, the value of the manure ought to be taken into consideration.

THE HIGH PRICE OF BARLEY.

BARLEY commands an unusually high price this season. In this city it is worth over one dollar per bushel, and in New York over a dollar and a half. In some of the Western cities the price is equally high.

It was thought by many that the war and the tax on beer and ale would have a tendency to lessen the consumption of barley, and doubtless this is to some extent the case; but the demand is still greater than the supply, and prices are high in consequence.

The standard weight of a bushel of barley in Illinois is 44 lbs.; in Massachusetts and Vermont, 46 lbs.; in Pennsylvania, 47 lbs., and in all the other States and Canada 48 lbs.

The standard weight of wheat is 60 lbs. per bushel; so that, by weight, a bushel of wheat is equal to a bushel and a quarter of barley. In New York barley is worth \$1.50, and the very highest quotation for the choicest samples of white wheat is \$1.65. That is to say, 60 lbs. of wheat are worth \$1.65, while 60 lbs. of barley are worth \$1.87 $\frac{1}{2}$; in other words, ordinary barley, weight for weight, is worth 22 $\frac{1}{2}$ cents a bushel more than the choicest sample of white wheat!

American barley, as compared to the English, is of very inferior quality. It is not at all uncommon to find ordinary malting barley in England weighing 57 lbs. per bushel; while our barley seldom overruns the standard of 48 lbs., and frequently is not over 44 lbs. per bushel. There are two causes which have tended to produce this result: First. The malt tax in England, amounting to 64 cents per bushel, is the same on poor barley as on that of the highest quality. It is quite an object, therefore, with malsters to secure the best barley that can be raised. Comparatively high prices are paid for good barley, while inferior samples can not be sold to the malster at any price. Under this stimulus great efforts have been made by farmers to improve the quality of barley. They have succeeded so well that English barley now sometimes weighs as much per bushel as wheat. Second. While the malt tax has stimulated English farmers to great diligence in the cultivation and improvement of this grain, our farmers have hitherto received little encouragement to improve the

quality of their barley. Malsters too frequently pay as much for poor barley as for good, and the consequence is the quality of the crop, instead of improving, has actually deteriorated. We believe our barley to-day is not as good as it was fifteen years ago.

Malsters and brewers are now beginning, however, to discover the importance of using good barley. There can be little doubt that one reason of the superior quality of English ale is owing to the excellence of the barley used for malting, and we hazard little in saying that the time is not far distant when good barley, weight for weight, will command a much higher price than inferior samples.

GRINDING CORN IN THE COB.

"WILL it pay to grind corn in the cob?"

To answer this question intelligently it will be necessary, first, to ascertain what the cobs are worth as food; and secondly, how much it costs to grind them.

From the only analysis we have ever seen of corn cobs—that of Dr. SALISBURY—we should say cobs, when ground, are worth about as much as good wheat straw.

What it is worth to grind them we do not know, but the millers in this city charge four cents for grinding a bushel of ears of corn, and five cents for grinding a bushel of shelled corn.

Estimating that two bushels of ears, weighing 80 lbs., will yield a bushel of shelled corn, weighing 60 lbs., we have in the two bushels of ears 20 lbs. of cobs. Now to grind this 60 lbs. of corn and 20 lbs. of cobs (two bushels of ears), costs 8 cents, while to grind the 60 lbs. of shelled corn alone costs 5 cents; so it costs 3 cents to grind 20 lbs. of cobs. This is equal to \$3.00 per ton: in other words, the ground cobs *cost* \$3.00 per ton.

If, however, we estimate that it costs a cent a bushel to shell the corn, the ground cobs would only cost us *two dollars per ton*.

Hay and all kinds of fodder are very high, and it would seem that the cobs should be worth \$2.00 per ton. There are those, too, who think that cobs mixed with the meal are an advantage over and above the nutriment they afford. On the whole, we think it will pay well in this section to grind the corn in the cob.

CHARLES BEACH, of Penn Yan, Yates county, N. Y., has invented a flax-dressing machine of much merit.

THE BOUND VOLUMES OF THE GENESEE FARMER.

MESSRS. EDITORS: Seeing your offer in the *Genesee Farmer* to send the last six volumes of your paper "handsomely bound" for five dollars, I concluded to invest. I received them in good order, prepaid, by express. They more than came up to my anticipations. There are no six volumes in my library that afford me more satisfaction, either to look at or examine. I have but one fault to find: The volume for 1860 is *better bound* than the rest. Perhaps you thought this your premium volume, and that it was entitled to a handsomer dress! If this was your idea, I agree with you, though I would have preferred to have had them all bound precisely alike*.

I have been examining this same volume for 1860, and am surprised at the amount of valuable information which it contains. The first article in the book, on the "Nature and Value of Peat and Muck," is admirable. Every farmer should know what is there asserted on the authority of Prof. JOHNSON, that "a well-made compost of two loads of muck and one of stable manure is equal to three loads of the manure itself."

The next long article, on "Thomas Bates," the great Shorthorn breeder, I read with much pleasure; and though I do not feel very friendly toward England just now, yet I could not help liking his honest, farmer-like countenance. Give us more lives and portraits of agricultural worthies.

The next article, on "English Bacon," did not specially interest me, as I am not acquainted with the article.

"Beans and Indian Corn for Milch Cows" are next spoken of—doubtless very good food, but I do not think it will pay to feed beans when they are worth \$2.25 per bushel. Do you? [No.]

The "Spirit of the Agricultural Press" is good—as it always is. There is no part of the *Farmer* I read with more pleasure. [Excuse me, Messrs. Editors!] After this I skipped a number of short articles, the horticultural department, editor's table and advertisements, (by the way, would it not be well to leave them out in binding?) and came to the leader on "Bones as a Fertilizer," in the February number, which is capital.

Next we are told how the Hon. A. B. DICKINSON raised *seventy-two* bushels of barley per acre. This was not pleasant to read about. (My crop was only 18 bushels per acre this year!)

On the next page I got a new idea: that heavy oats, *weight for weight*, are worth more than light oats. Such is, of course, the case, but it had not occurred to me.

Then I turned over a page or two, and came to the "Genesee Farmer Prize Essays." We have here nineteen prize essays on various subjects, evidently written by practical men. These essays alone are worth the price of the volume; but in addition to them we have an immense amount of information on all subjects interesting to the farmer and gardener, and I can not but wish that every farmer in the State had this volume of the *Genesee Farmer* for 1860 in his library. It costs but a dol-

* All the volumes are bound alike, except that the volume for 1860 has a purple-colored back. We think with you, however, that it would have been better to have had them all of a uniform color.—Eds.

lar, and I can sincerely say that if I could not get another, I would not part with it for five dollars in gold!

X. Y. Z.

REMARKS.—We are glad our esteemed correspondent is pleased with his purchase. We feel sure that no one interested in agriculture or horticulture can have a more useful work in his library than the last six or seven bound volumes of the *Farmer*—and certainly nothing cheaper and more convenient for reference can be found in the whole range of agricultural literature. We greatly need an American *Cyclopedia of Agriculture*; but in the absence of such a work, our best and most convenient source of information on the various subjects which almost daily occur to the mind of one engaged in the multitudinous labors of the farm, the garden and the orchard, will be the bound volumes of a monthly agricultural journal, furnished with a complete index.

The volume for 1860 is one of the best of the series. The Prize Essays, to which our correspondent alludes, are specially valuable, and they are as useful and interesting now as on the day they were written.—EDS.

ASHAMED TO BRING STRAW TO THE CITY.

A few days since, we asked a good farmer of this county to bring us a load of straw for bedding horses. He replied, "I have plenty of straw, and would like to accommodate you; but the fact is, *I am ashamed to be seen bringing a load of straw to the city!*"

Knowing our friend was in the habit of bringing potatoes, grain, etc., to market in person, we did not, for the moment, see the point of his objection; but we were not left long in doubt. He is an observing farmer, and has found that the only way to raise good crops is to keep up the condition of his land by making manure, and for this purpose he is careful to preserve his straw both for fodder and litter. He would be ashamed to let red-root and Canada thistles overrun his wheat fields, because it would show that he was a bad farmer, and for the same reason he did not like his neighbors to see him selling straw.

We like the idea. It is a healthy and hopeful feeling—this sense of shame at farming poorly.—We all like the good opinion of the community in which we live, and that man is highly favored who has neighbors who do not approve of poor barns, broken fences, scrubby cattle, foul fields, and slovenly cultivation. And not less so when they can see the folly of growing too much grain, keeping too little stock, and selling the hay and straw instead of converting them into manure.

We must get our straw from a less enlightened neighborhood.

NOTES BY S. W.

EDS. GEN. FAR.—If anything ought to recommend an agricultural paper to the reflecting part of the farming community, it is the apparent unselfishness of its editor, who spends both his time and money in experimenting with varied manures, on a growing crop, that his readers may have, gratuitously, the benefit of his patient labor and practical experience. But perhaps I set your self-denial a little too high, and that your field experiments, year after year, are mainly due to your darling passion for the art Agriculture. I well remember when I was a boy, hearing Washington Allston say, that painting was his highest enjoyment, and that the only reason he did not paint more, was that his health and strength would not permit.—You probably have as great a passion for producing the maximum in vegetable growth, as he had to reach the greatest excellence in his high art. Both lived in the gratification of a darling passion, and the scoffed miser does no less.

As your experiments this season in the growth of sorghum, gives a mysterious value to gypsum as manure, I will recite a single experiment of my own, made without the aid of either gypsum or superphosphates, in specific form. Three years ago I grew a few rows of sorghum in my clay garden; stall manure in a crude state had been trenched in the fall before, the soil was forked over before planting, and the drills made with the hoe; although I sowed the seed liberally along the drills, and covered them with fine, warm, rich soil, not more than one half germinated; and as with you, there were many vacant spaces of two or three feet each; as I thinned out the rows, I filled up the vacant spots with strong plants, then four inches high, and every one thus transplanted lived and grew as thriftily as any in the rows; the plants were thinned out to eight and ten inches apart, the rows three and a half feet apart. For several weeks the sorghum grew very slowly, not half as fast as sweet corn in the same garden; but after hot weather set in, it was rampant, sending out many suckers that attained a height of six or eight feet, while the main stalks were from 11 to 13 feet high, and from one to one and a fourth inches in diameter. I cut up the stalks in October, and fed them, cut in short pieces, to the cow, as long as they lasted, but the seed failed to ripen thoroughly.

JOSEPH WRIGHT has grown another monster crop of Dent corn this season, on seven acres; he got the seed as usual from the West. One acre carefully measured, yielded 157 bushels of ears; as the ears are longer and better filled to the end of the cob than prairie corn generally, he intends to measure the shelled corn of this acre accordingly, presuming that it will measure nearly 120 bushels; the cob has no collar, and it does not weigh as much by nearly one-fourth as the cob of the eight-rowed Flint corn. VINCENT SHUTT, of Fayette, has also grown the Dent corn the three past seasons, with great success; he is confident that its cereal yield is full one-third more on the same soil, than that of Flint corn.

Catawba grapes only ripened well here this season when they had been thinned out early; where the bunches hung in masses there were many sour grapes. I picked my Concord by the 20th of Sep-

ber. Isabellas were eatable by the first of October, but did not retain their refined sugar sweetness after the middle of the month. We had no rest here to kill the grapevine leaves until the night of the 6th of November; then snow fell two inches, and the mercury went down to 22°; an earnest, I take it, of a long boating season.

Strawberry plants, set out in August and September, generally failed, owing to the paucity of rain. We have had no short crops this season, if we may except buckwheat, and this failure is due to extreme dry weather.

The sad depreciation in the currency is anything but a present misfortune to the farmer, as it makes shipping demand for most of his productions, even butter; and consequently raising the prices.

The Waste of Manures in Cities.

I have been reading in the "Miserables," VICTOR HUGO's very lively and instructive chapters on the sewers of Paris. He quotes LEBIG to show that ancient Rome's cloaca absorbed all the well-being of the Roman peasant;" that when the Campagna of Rome was ruined by the Roman sewer, Rome crushed all Italy, and when she had put Italy in her cloaca, she poured in Sicily, then Sardinia, then Africa. With epigrammatic wit HUGO says, "this example Paris follows with all the stupidity peculiar to cities of genius." With her 140 miles of sewers, Paris precipitates into the Seine and the ocean, hundreds of millions in those simple elements which she has gathered from the soil far and near, never to be returned to it. Thus he says, "the cleverness of man is such, that he prefers to throw a hundred millions of the best guano in the world to the gutter!" But he continues, "when draining everywhere, with its double function, restoring what it takes away, shall have replaced the sewer, at simple impoverishing washing, then, being combined with data of a new social economy, the product of the earth will be increased ten fold, and the problem of misery will be wonderfully diminished. In the meantime, Europe is ruining herself by leakage and exhaustion." Thus far, the Chinese is the only nation that has from necessity been impelled to return to the earth all the elements of the food consumed, in order that it may produce sufficient nutriment to subsist its immense population. Edinburgh is, I believe, the only European city that has commenced distributing its sewerage to the surrounding country, as manure for both grain and grass; and it is said that the experiment is a great success. How soon will the day come when what has long been a necessity in China, and now in Europe, the appropriation of sewerage as manure, will also be a necessity to the United States? The city of New York alone, now daily destroys the corn and cattle of a large district of country, every simple element of which goes into the sewer, to be "in the deep bosom of the ocean tried," never to be again quickened into vegetable and animal life!

Often has this deponent gone from the fetid narrow streets of New York, sickened with the condensed air and compound smells of a tainted atmosphere, to the gravelly soils of Staten Island, or the sandy plains of Long Island, when, in the fresh and invigorating sea atmosphere, the arid soil alone cried aloud, for those elements of fertility which were

the plague spot and bane of the great Babylon. I then could but reflect, that Providence had designed from the beginning, that those hungry silicious plains should be the recipients of the wastings of the great city; the easy, grateful soil, being already perfectly prepared and underdrained by nature's hand, to need nothing but that which in the city was a crying daily waste, a source of squalor and disease.

New York has her poor houses, her charitable institutions, without stint. But methinks the crowning charitable institution is not that which displays the finest architecture, or that which the most comfortably feeds and lodges its eleemosynary inmates; but that which usually employs them, while it feeds them. I want to see on the underdrained, bushy plains of Long Island, a vast market, fruit, and flower garden, or gardens, manured by the city wastings, sewerage, if you please, and worked by the cities' poor: Such a consummation would relieve pauperism of its bane,—idleness, its demoralizing chronic helplessness—by a discipline and practical daily training, that leads to self-reliance and subsequent self-respect, and consequent usefulness in the world.

S. W.

Waterloo, N. Y., Nov. 10, 1862.

LANGUAGE OF FOWLS.

EDS. GENESEE FARMER: By the term "language" in reference to fowls, we do not mean sounds which can be mutually understood, but that many fowls have various sounds and voices adapted to express their various passions, wants and feelings—such as anger, fear, love, hatred, hunger, and the like. All species are not equally eloquent: some are copious and fluent, as in their utterance, while others are confined to a few important sounds; no one is quite mute, though some are silent. The language of sounds is quite ancient, and like the ancient mode of speech, of other bipeds, very elliptical: little is said, but much is meant and understood.

We shall confine our remarks to the domestic fowls of our yards, which are most known, and therefore best understood.

No inhabitants of a yard seem possessed of such a variety of expression and so copious a language as common poultry. Take a chicken of four or five days old and hold it up to a window where there are flies, and it will immediately seize its prey, with little twitterings of complacency; but if you tender it a wasp or a bee, at once its notes become harsh and expressive of disapprobation and a sense of danger. When a pullet is ready to lay, she intimates the event by a joyous and easy, soft note. Of all the occurrences of her life, that of laying seems to be the most important; for no sooner has a hen laid her egg, than she rushes forth with a clamorous kind of joy, which the cock and the rest of his mistresses immediately adopt. The tumult is not confined to the family concerned, but catches from yard to yard, and spreads to every homestead within hearing, until at last the whole neighborhood is in an uproar. As soon as she is a mother, her new relation demands a new language; she then runs clucking and scampering about, and seems agitated as if possessed. The father of the flock has also a considerable vocabulary; and if a

bird of prey passes over, with a warning voice he bids his family beware! The gallant chanticleer has at command his amorous phrases and his terms of defiance. But the sound by which he is best known is crowing; by this he has been distinguished in all ages as the countryman's clock or alarm, as the watchman proclaims the divisions of the night. His "cock-a-doodle-do-oe," translated, means, "*Women do not rule here-e.*"

The peacock, with his gorgeous train, now demands our attention; but, like most of the gaudy birds, his notes are harsh, grating, and shocking to the ear; the yelling of cats, and the braying of an ass, are not more disgusting. The voice of the goose is trumpet-like and clanking; the hiss of the gander is formidable and full of menace and "protective of his young." The flight of wild geese is generally in a straight line, or in two lines approximating to a point. In both cases the van is led by an old gander, who every now and then pipes his well-known *honk! honk!* as if to ask "how they come on;" and the *honk* of "all's-well" is returned by some of the party. Among ducks the sexual distinction of voice is remarkable; for while the quack of the duck is loud and sonorous, the voice of the drake is inward and harsh, and feeble, and scarce discernible.

Turkeys have a language of their own—known and understood among themselves as well as their owners understand written language. It may not be Hebrew, or Greek, or Dutch, but answers their own purpose. It can not be as extensive as that of the Chinese; but by it, young and old of a turkey community will learn to communicate their thoughts to each other in far less time than small children in an infant school will learn the elements of our vernacular dialect. By a particular word—to them it is a word—or whistle, or sound uttered by one of the older members of the flock, particularly if uttered by the gobbler, should there be fifty of them, all will stop feeding and look up to learn what is wanted. This will be invariably done, if the old gentleman or one of the old ladies should discover a hawk hovering high in air; the mother becomes agitated with fear, and uses the natural language of that passion; her young ones catch the fear by imitation, and in an instant conceal themselves in the grass. At the same time that she shows her fears by her gesture and deportment, she uses a certain exclamation—"Koe-ut," "Koe-ut"—and the young ones afterward know that the presence of their enemy is announced, and hide themselves as before.

This note of danger, as well as the other notes of the mother-turkey, when she calls her flock to their food or to sleep under her wings, appears to be an artificial language, both as expressed by the mother and as understood by the progeny; for a hen teaches this language with equal ease to the ducklings she has hatched from supposititious eggs, and educates as her own offspring; and all our domestic animals are readily taught to come to us for food when we use one tone of voice, and to fly from our anger when we use another.

The cock-turkey struts and gobbles to his mistress in a most uncouth manner; he has also a pert and petulant note when he attacks his adversary. When a hen-turkey leads forth her young brood, she keeps a watchful eye; and if a bird of prey

appears, though ever so high in the air, the careful mother announces the enemy with a little inward moan, and watches him with a steady and attentive look; but if he approach, her note becomes earnest and alarming and her onteries are redoubled. How do turkeys know the character of the Goths and Vandals of the feathered races until they have experienced their ravages? They apparently do know it from instinct. Persons, wise than ourselves, may answer the question. We cannot.

C. N. BEMENT.

Bennington Center, Vt., November, 1862.

ABOUT RAISING CORN.

"Got your corn all husked, neighbor?"

"Yes; I finished up yesterday while it rained. I traced it this morning, and have got it into the chamber safe and sound."

"How did it turn out this year?"

"Well, not as good as last, but a fair average crop."

"I don't see how you always manage to get good corn when the rest of us can't raise half a crop. Now mine wasn't worth much more than the hay resting; and there's SMITH, he cut his up for fodder. My land is about the same as yours, and I keep as much stock and make as much manure as you do, and I don't see why I can't raise as good corn. Must be you've found out some different way from us."

"There is no secret in it, neighbor, and I know no reason why my crop should be better than yours, unless it is that I take more pains in raising it."

"What kind of ground do you plant on?"

"I usually use that two years from the sward which was first sown with oats and cropped the previous year with potatoes, giving it a good manuring with barn-yard manure; then plow in the fall and again in the spring, when it will be in good tilth for the corn."

"Do you always plant corn on old ground?"

"No. I sometimes plant on greensward broken in the spring."

"Don't you think 'tis better to plow sward for corn in the fall?"

"I prefer the spring, when, if you have tea enough and 'tis properly turned, it is about as easy as old ground. Wait until corn-planting time, turn over the sward nicely, let it lie just long enough to become thoroughly warmed, then put the seed, and by the time it gets fairly rooted the turf turned under will begin to heat, and you can almost see your corn grow."

"What kind of manure do you think is best for corn?"

"Hog manure, always; and next, that from the privy and hen-house, mixed with muck or गोम; but the less old leached barn-yard manure you use the better for the crop. As neighbor Jones says, 'I had about as lief have one shovel full of manure that a hog has rubbed against, as two of that from the barn-yard.'"

"I know hog manure is best for corn; what do you suppose makes it so?"

"One cause of the inferiority of barn-yard manure is the leaching process which most of it undergoes before it is considered good 'old manure' but the principal cause is the difference in the

value of the food that goes to form it; for the value of the manure from any animal depends on the quality of food consumed, and not any peculiarity in the animal. So you see there may be a great difference in the goodness of manure, even from two animals of the same species; for if one is fed on poor fodder and meadow hay, and the other on good English hay and plenty of provender, the manure is richer in power in proportion. Hence the superiority of hog manure; for except man, the hog, perhaps, receives the most nutritious and valuable kinds of food."

"Don't you use any artificial manure?"

"Nothing except a little *plaster*. I roll the seed in it, and place a little on each hill just after the corn comes up. I think this last application of special value if the season happens to be dry. But there is another point in which I take considerable pains with my corn, and that is in regard to the selection of seed. It is my habit to take only those ears that are perfectly ripe, are full and entirely filled out at the end, and particularly only those from stalks which have two or more ears. I do this for the reason that there is a law of Nature at 'like produces like' to a certain extent, and I expect that according to the seed I plant so will my crop be, other things being equal; and I think that by a careful and judicious selection of seed for a series of years the quality and quantity of corn must be visibly increased."

"How do you usually save your corn?"

"I trace all I can conveniently, give the pig-ear from to the hogs, and spread the remainder on the lumber floor. It is a little more work to trace or pick up the corn, but when 'tis once done and picked up you have no more trouble with it."

Belfast, Me., 1862.

GEO. E. BRACKETT.

SPIRIT OF THE AGRICULTURAL PRESS.

THE VALUE OF FOOD FOR CATTLE.—The *Maine Farmer* says: "The nutritive value of food is estimated by the quantity of nitrogen it contains." This was the old rule, since the results of Mr. LAWES' experiments in fattening cattle, sheep and hogs, were published, we supposed the idea was abandoned. It is certainly not a correct method of estimating the value of food. It would make a bushel of peas more nutritious than two bushels of corn, which we all know is not the case. It would be nearer the truth to say that the nutritive value of food is in proportion to the amount of available carbonaceous matter (starch, oil, sugar, etc.) which it contains. This should be on the basis of our estimate of the value of food, and not the more nitrogen we can get in addition the better. Corn is perhaps too carbonaceous, and peas and beans too nitrogenous. A mixture of the two would be better than either alone.

The amount of nitrogen in the food determines the value of the manure derived from it, but not the nutritive value of the food itself. Clover hay contains twice as much nitrogen as timothy hay, but while it is very nutritious, it is not worth twice as much as timothy hay.—making manure, however, it is twice as valuable.

THE CHEAPEST WAY TO RAISE TURNIPS.—ALBERT SEARS says, in the *Farmington (Me.) Chronicle*, that he has here "has found the cheapest way to raise Eng-

lish turnips." He manures his land at the rate of 20 or 30 loads to the acre; sows the seed by hand, about the 1st of July, first marking off the rows about 15 inches apart, with a marker made in the form of a hand rake; then cover the seed by drawing a dray load of stones over it till the surface of the ground is made fine and quite hard. He thins carefully, "pulling out the largest weeds."—This is all he does until harvesting. This year he got "100 bushels from 31 rods of ground." This is equal to 516 bushels to the acre.

Not a very big crop, Mr. P., and your method of culture is not of the most approved pattern. Instead of having the rows only 15 inches apart, it would be better to have them two feet or two and a half feet apart. Then instead of "pulling out the largest weeds," you could use the horse cultivator between the rows, and destroy all the weeds with the hand hoe, thinning the plants 12 inches apart at the same operation. This is the plan adopted in Canada, where a thousand bushels per acre are not unfrequently obtained on acres together.

DOES IT PAY TO FEED HOGS?—A correspondent of the *Maine Farmer* answers this question in the negative.—Last winter he took two shoats weighing over 100 lbs. each, and estimated to be worth \$12. He fed them carrots, potatoes, corn, barley, peas and buckwheat meal, to the value of \$32.45. He killed them early this fall, and the best one weighed only 343½ lbs., for which he got 6c. per lb., or \$20.61—say \$41.22 for the two. Deduct from this \$12, the original value of the pigs, and we have a loss on each pig of \$1.61. In addition to the above food, the pigs had the waste from the house and the milk of three cows, for which nothing is charged.

At the present prices of grain in the Eastern States, we cannot see how pigs can be fattened with profit, if the pork only sells for 6c. per lb.

THE AMERICAN MILKING MACHINE.—This machine, which was alluded to in the *Genesee Farmer* some years ago, and which we thought more ingenious than practically useful, created quite a furor in England. The right to manufacture was sold for a large sum, and the machine is now made by the "Cow Milking Machine Company," of Smethwich, near Birmingham. The *Irish Farmers' Gazette* says a public trial was recently held, in which the machine gave satisfaction, though it is admitted that "none of the cows were clean milked," but it is supposed "this will not be the case when the machine is tried on new milch cows and heifers."

"SHALL WE ALL RAISE WOOL?"—Such is the caption of an article in the *Maine Farmer*. It says that, stimulated by present high prices, many are curtailing other branches of farming, and turning all their capital and energies to wool-growing. The writer thinks they should not be in a hurry to sell off all their cows, and all their colts and oxen, and go with a rush into the sheep speculation. Extremes in any business are seldom lasting, and it is better to pursue a mixed system of agriculture.

FALL PLOWING FOR CORN.—A correspondent of the *Wisconsin Farmer*, plowed a field of land for corn last fall, leaving a strip in the center of the field unplowed. The field was cross-plowed this spring, and on the part not fall-plowed the crop was fully one-third less than on the rest of the field.



NOVA SCOTIAN APPLES IN ENGLAND.

THE leading article in the last number of the *Gardener's Chronicle*, is devoted to an account of a collection of fruit, sent from Nova Scotia to the Royal Horticultural Society's Exhibition at London.

The apples "were distinguished for size and the brilliancy of their colors." Among the specimens particularly alluded to are, the Gravenstein, "a Danish apple, of the highest excellence for both table and kitchen—beautiful specimens, far finer than those sent the other day from Denmark and Germany. Blue Pearmain, an excellent variety, not unlike the King of the Pippins in shape, but three times as large, and prettily mottled all over with reddish spots, giving the whole apple a warm brown aspect." Many other well known varieties are described in glowing colors, and the editor remarks in italics: "*All these were from open standards.*" The fact that such beautiful apples can be grown on ordinary trees in the open air, seems to surprise him. After alluding to other varieties, the editor remarks:

"What gives this collection special interest, is the example it affords of the excellence of the climate of a Colony which half the world believes to be dismally dreary. Such apples as these are, and such pears, plums, and apricots as these were, can only come from a country at least as genial as our own. We cannot but wonder indeed that the English markets are not supplied with Nova Scotian fruit; for it is far finer than most of that imported from the United States. Such Gravensteins, such Blue Pearmain, such Chebuctos, are rarely, if ever, seen in Covent Garden, where they would make a fruiterer's fortune."

We have no doubt about it. They would "make a fruiterer's fortune." Why is it that we do not export more apples to England? Never was there a better time to send them than the past season. Apples never were cheaper, finer or more abundant, and yet but comparatively few, at least from this section, have been exported.

These Nova Scotian Apples were "put in boxes consisting of little compartments for each variety, which was packed in bran." The editor remarks

of the collection: "Notwithstanding the distance it has traveled, part of its contents are as fresh, and in as good condition as if they had been brought from the nearest fruit-room."

The pears were much decayed, having been packed in moss—"the worst possible material."

CULTIVATION OF GRAPES.

OUR friend SAMUEL WILLIAMS, of Waterloo, N. Y., in a private note remarks: "The grape business bids fair to be run into the ground. Fine Isabellas were sold here at five shillings (62½c) per bushel. I have made a little wine. The pure juice was very sweet, yet to give it alcohol to preserve it, I added two pounds of coffee sugar to the gallon."

We do not think there is any danger of running the grape business into the ground. Fruit of all kinds has been unusually abundant the past season and the prices have consequently ruled low. Such an excessive crop may not be produced again for many years. There is little danger of permanently overstocking the market with good fruit. Even the present year the low prices did not last very long. Good pears in New York, such as Bartlett, Louise Bonne de Jersey, Duchess d'Angoulême, Seckel, &c., which usually bring from \$12 to \$14 per barrel, sold this year, at the opening of the season, for \$4 per barrel; but it was only for a few weeks. We presume the low prices induced greater consumption, for it was not long before pears went up to \$8 and \$10 per barrel. It is so with apples; there has been an immense crop all over the country, and freights have been exceedingly high, and labor very scarce, so that every thing seemed to conspire to reduce the price far below an average. Apples, however, are now higher and the probability is that before next spring good prices will be obtained.

Taking one year with another, a good apple orchard is highly profitable, and we see no reason to apprehend a permanently overstocked market. For twenty years people have been saying that we were planting too many trees, but still the supply of good fruit has not on the whole been equal to the increasing demand. So it will be in the future. Fruit is no longer a luxury. It is fast becoming a necessity in every family, and those who plant good varieties, and take care of their orchards, will meet with their reward.

VERY full extracts are given in the *Cottage Gardener* from Miss COOPER's *Journal of a Naturalist in the United States*, under the head of "Extracts from a too much neglected Book."

HORTICULTURE IN CALIFORNIA.

THE California State Fair was held at Sacramento, on the last day of September, and notwithstanding the disastrous effects of the late floods, there were quite a large number of entries, and a very good attendance. The *California Farmer* says that "the city was filled to repletion."

Figs take a prominent place among the fruits.—One exhibitor is credited with 21 varieties. Of grapes, the largest collection was 56, and there was another of 48 varieties. Apples seem to be cultivated more than any other fruit, except grapes. Several exhibitors had over twenty varieties. One apple, *Gloria Mundi*, measured 15½ inches in circumference. Five plates of Bartlett pears were shown, being specimens of five different crops grown in the same year, on the same tree!

It is difficult to find out how large the various collections were, as they are often all classed together, as "a large collection of apples, pears, peaches and grapes." One exhibitor had two varieties of plums, and there was but one other competitor and he had only one variety. *JESSE MORRELL* had Japanese pears from a tree five years old from the seed, and *Major J. Bidwell*, of Chico county, had two varieties of Japanese pears. Pomegranates are in the list, and quinces were shown by several persons. The list of fruits was not large, and there is not a flower mentioned in the catalogue, except two vase-boquets in the collection of one exhibitor.

In vegetables the display was not large. A squash, weighing 176 pounds, and a turnip, two feet and 11 inches in circumference, weighing 15 pounds, are mentioned as noticeable for their size.

The strong points of the Fair seem to have been the display of stock and of fancy work. The large number of entries in the latter department, prove that the ladies of California are "keepers at home."

The absence of "the splendid collection of fruits and flowers" from *SMITH & GORDEN* is regretted by the *Cal. Farmer*, and *Mr. Smith* is spoken of as one who has done much for the Horticultural interests of the State. His losses were so great by the flood that he was unable to exhibit. *Messrs. White & Hollister* are also mentioned as being prevented for the same reason from adding to the display.

In the address by the President, he says that—"In regard to fruit, soil, and climate, the market of one of our smallest towns will compare favorably with that of a provincial city in the interior of France. Paris, Vienna, London, Berlin, cannot

display as large a variety of fruits of their own raising, as the fruit stands of San Francisco or Sacramento daily exhibit."

It is pleasant to see that in the pursuit for gold, the calmer and purer pleasures of horticulture have not been forgotten.

TREE PLANTING.

"HAVE you never heard of the student who, on being told that the crow would sometimes live a hundred years, bought a young crow to try the experiment?" Yes, indeed, we have heard of him—the irony is excellent—and of *Dr. Johnson's* growl "about the frightful interval between the seed and the timber." Still, we say, plant trees. They who plant at once, instead of wasting their breath in selfish complaints of the shortness of life, find luxuriant foliage waving over them much sooner than expected. But, whether you live to see the maturity of your trees or not, be benevolent enough to plant for posterity. Transmit to your children the inheritance of rural beauty received from your fathers, greatly augmented. By all means plant, and plant well, and the result will overpay the labor. And let not your work end with planting. Feed your trees from year to year with generous food and guard them from injury. And in the words (slightly altered) of an old planter: "What joy may you have in seeing the success of your labors while you live, and in leaving behind you, to your heirs or successors, a work that, many years after your death, shall record your love to your country! And then rather, when you consider to what length of time your work is like to last." If you have country homes to embellish, be content with simplicity. Remember that a great establishment is a great care, and that the proprietor is apt to become a slave to it. Let your dwelling place be marked with what painters call "repose." Make them the abode of comfort and refined enjoyment, places which always afford you agreeable occupation, but not oppress you with care.—*North American Review.*

DEAD ANIMALS FOR GRAPE VINES.—At the last meeting of the Fruit Growers Society of Western New York, the opinion was advanced that dead animals buried beneath grape vines, imparted a disagreeable flavor to the fruit. In the discussion which followed, *J. J. Thomas*, to show how soon animal matter decomposed in a porous soil, stated that he once buried a cow in a heap of muck, and that in a year the whole animal had disappeared except the bones. The fact is an interesting one—showing that muck and loam not only absorb the gases eliminated, but also accelerate decomposition.

Mr. Thomas is not in favor of burying dead animals under grape vines. He prefers thorough cultivation to high manuring. Like ourselves, he recognizes the fact that *tillage* is manure, and there is probably no man in the country that has done more to disseminate the idea among farmers and gardeners.

PEACHES IN UNFAVORABLE CLIMATES.

WE have alluded in the *Genesee Farmer* to the success of LEVI BARTLETT, of New Hampshire, in growing peaches by protecting them with snow in the winter. In the *Country Gentleman* for October 23 he says:

"About a year ago I stated that I had a number of peach trees, the limbs of many of them being on and near the ground; these lower branches are usually covered in the winter by the snow, and being thus protected they have been pretty sure to produce peaches every year. This year I have about twenty trees thus yielding peaches, and, as they are all seedlings, there is quite a variety as to color, size and quality—some having a beautiful scarlet blush upon one side; others are almost snow white; others are nearly red or yellow. These two last kinds 'the old folks at home' call Rare-ripes and Melacotoons. But the great majority are white—some with skins nearly as smooth as nectarines.

"There are on several of the trees scattering peaches above the 'snow-line,' but few and far between when compared with those branches that were snow-covered. I can 'appreciate the difference between a ripe peach plucked freshly from the tree, and one picked immature and carried one hundred miles to market;' and I think thousands upon thousands of our New England farmers might have a supply of peaches every year, that are now destitute, if they would rear trees, give them the right training and proper winter protection—all of which can be done without any great outlay of time or money. By training so as to have the limbs near the ground, and perhaps pinning them to it with hooked pins, the snow would usually be a sufficient protection; but probably it would be a safer way to cover them with branches of evergreen trees, or possibly straw might answer. If standard trees were preferred, they might be protected by inclosing them in evergreen trees. Last Saturday, being at the village, I met with a man who related to me an experiment he made last autumn with a peach tree. Late in the fall he procured hemlock and spruce trees about a dozen feet high; with a crowbar he made holes around the peach tree, and set out the evergreens, so as to completely protect it from sudden changes of the weather. Early in May he removed the hemlocks, and the result of the operation was, that none of the tenderest limbs or blossom-buds were injured by the cold of winter. The tree is very thrifty, five or six years from the seed. This morning I rode out two miles to examine the tree, and I have no doubt there is over two bushels of fruit upon it to-day, large and fair, and just beginning to ripen. Now, what ISAAC HUNT has done in the way of growing peaches away down here, a little this side of the north pole, others can do, and have peaches without money or price. With one exception, I have seen no peaches upon trees exposed to the winter; but I have seen this season a great many pretty fair peach trees, 'but nary a peach upon them!'"

THE *Scottish Farmer* says that water from a gastank is very destructive to all kinds of garden insects.

SHELTER FOR PEACH ORCHARDS.

MESSRS. EDITORS—I notice in the November number of the *Genesee Farmer*, an article in reference to the statement of Mr. SANDERS in the *Prairie Farmer*. Please allow me to say, that reasoning from his facts will not do for such as have not the advantages which St. Joseph, Mich., possesses as a fruit raising country. My reasons for making this statement are briefly these:

1. St. Joseph is on the east side of Lake Michigan, which never freezes, and consequently the winters are milder, and the winds warmer than they would otherwise be.

2. They are for the reason above stated, protected by nature's own providing from winds, which in the prairies of the West, and timber lands, too, prevent the successful cultivation of the peach.

3. To my certain knowledge, peach trees protected by having corn-stalks and other material placed among their branches, have preserved their fruit, while adjoining trees have lost theirs.

4. Trees planted on the south side of a house, and protected on the west and southwest by a large barn, have fruited every year, while others in exposed situations, have failed every time.

I am therefore in favor of protecting every tree, and always, unless in such a situation as St. Joseph.
Elm Cottage, Fulton Co., Ill. ELGIN.

THE FASCINATION OF FRUIT CULTURE.—A correspondent of the *New York Tribune*, in an account of the Horticultural Exhibition at Chicago, says:—

"I was amused to notice how much the exhibitors thought of their fruit; with many, this is the first year their trees have borne, and this care was particularly the case with those who have lived in cities, and who only a few years ago turned their attention to fruit growing. Hour after hour they stood by their tables, their eyes running from plate to plate, and often they rearranged them so that each pear and bunch of grapes should show the best that it could. Human affection is scarcely less devoted. I was reminded of a young wife with her first baby. Some may call this a species of insanity. Very well, I own to being a little insane on strawberries. But people do not understand it. They do not have before them the years of persevering industry, as the fruit-grower does, and they have no long hopes realized. They know not how he has watched his trees through all seasons, till they have become 'familiar trees;' how he has thought of them when falling asleep, or on a journey, or how he has walked among them with his wife on Sunday afternoons. Of all the descendants of Adam, none have so nearly succeeded in getting back into Paradise as the fruit grower."

THE TALLOW TREE.—This tree has lately been introduced into India from China. From its seeds tallow and oil are procured, which are extensively used in China. Its wood is hard and durable, and its leaves yield a black dye. The tallow and oil are very easily extracted from the seeds. It is said that by its produce alone the taxes are paid in the district of Hong Kong. So says the *London Times*.

HORTICULTURAL ITEMS FROM FOREIGN JOURNALS.

DR. W. J. BERKELEY, of the *Gardeners' Chronicle*, disposes of the "jute question," very completely, and offers the best reasons to prove its unfitness as a substitute for cotton.

It is proposed to cultivate the Japanese wax tree in France. The vegetable wax is one of the principal articles of export from that country. It is obtained from the seeds.

THERE are three International Horticultural Exhibitions held in Europe this season—one in Belgium, one in Vienna, and one in London. Some fruit, &c., is expected from Canada.

THE *London Florist* has a beautiful colored plate of two new *Rhodanthes* (*R. maculata* and *R. atrosanguinea*) which it says are "among the finest of the additions which have lately been made to the class of half hardy annuals."

THE *Journal of Horticulture* commends the American Arbor Vitæ as a hedge plant, except on wet clayey soils. There are hedges of it in Kew gardens from five to ten feet high, and not more than six inches through at the bottom, and barely an inch thick at the top. It says truly that no plant is more pliable, or bears pruning or clipping better.

DR. FREDERIC W. MORRIS, resident physician of the Halifax Visiting Dispensary, N. S., has written a letter to the American Medical Times, in which he states that the *Saracenia purpurea* or Indian cap, a native plant of Nova Scotia, is a remedy for small pox in all its forms, in 12 hours after the patient has taken the medicine. Its taste is so mild that it can be mingled with coffee or tea without affecting the flavor. If vaccine or varicellous matter is washed with the infusion of the *Saracenia*, they are deprived of their contagious properties.

AT Kew, in the British National Gardens, they have had during the past year, various flowers arranged in the ribbon style, that is, in stripes of different colors, 50 feet in length by seven in breadth. The effect of this arrangement was exceedingly brilliant, and has been very happily turned to a practical account, inasmuch as all the great centers to English industry have sent agents and artists to copy it, as designs and patterns for the goods they manufacture. One lady ordered to be manufactured for her fifty yards of stair carpeting, and a drawing room carpet, the borders and centres of which are to be an exact imitation of the borders and centers of the flower-bed in question.

TRUFFLES were exhibited by Mr. J. WAINWRIGHT, from Kettering, at the last Exhibition of the Royal Horticultural Society.

A CORRESPONDENT of the *Gardeners' Chronicle*, in a very long and minute account of the Great Show of the Royal Horticultural Society, says that the most remarkable feature of the exhibition was the display of gourds. Several persons had over a hundred in their collections, and two hundred varieties were sent from the Society's gardens. The largest of the mammoth variety weighed 103½ pounds, and two others weighed 100 pounds each. One called the Snake, was eight feet long, and there was every size down to the tiniest, which was scarcely as large as a good sized gooseberry. One variety called the Marmalade, was shown with a pot of marmalade made from the gourd, but the report does not say whether the marmalade was eatable.

SPARE THE INSECT EATERS.

At a recent meeting of the New York Farmers' Club, SOLON ROBINSON justly remarked:

"We need more information about insect-destroyers. We have made war upon birds, for some fancied injury they do to the crops, without considering that they are natural enemies of insects; we hate the sight of toads, and kick them out of our path, without stopping to consider how many insects hurtful to the garden these toads have destroyed; we have a deadly enmity against skunks, and teach the boys and dogs to catch and kill, without stopping to consider that every skunk upon a man's farm is worth, annually, the interest of a hundred dollars. It is true, a skunk will eat an egg or chicken. A mink or a weasel will do the same. What else will they do? Let us think. They certainly do not live upon eggs and chickens. No farm affords enough chickens and eggs to furnish food for a colony of skunks, but it does furnish bugs, worms, rats, mice and moles, which the skunks industriously pursue. The weasel is a most efficient ratter. I am not sure about him as an insect-destroyer, as I am of the mink. Insects are his natural food. I have heard of one man in Central New York, who has a pen of domestic minks, which he undertook to breed for their fur, which he finds a profitable undertaking, but he has found another thing connected with this new kind of farm stock still more profitable. By keeping his minks and bees close together, he has found that they catch and eat every miller that comes near them. If a grasshopper sails into the pen, he is snapped up before he touches the ground. Boys are much amused in feeding grasshoppers to the minks, which are as easily penned as rabbits, and much more useful, as they breed rapidly and the pelts are valuable. Let us study natural history a little more. Let us learn, as we can, that in destroying some animals considered noxious, we have increased others that are really so. Let us learn that skunks, weasels, minks, toads, crows, robins, sparrows, swallows, martins, *et genus omne*, are not the farmers' worst enemies—they are all insect-eaters and vermin-destroyers."

Ladies' Department.

ORIGINAL DOMESTIC RECEIPTS.

Contributed to the Genesee Farmer.

WAFFLES.—To one quart of milk add four eggs, flour enough to make a soft batter, a small piece of butter, and a little salt. A plainer kind, and, if well made, much better, has some cream with the milk and only two eggs; but in this case you must add a little soda.

FRUIT CAKE.—One pound of butter, one pound of sugar, one pound of flour, three pounds of rasins, three pounds of currants, ten eggs, one pound of citron, and spice to your taste. Too many cloves give the cake a bitter taste. Other spices should be added freely. This receipt has been often tried, and it is excellent—much better than when more fruit is used. For a wedding cake, twenty-five pounds will make a large loaf.

FLANNEL CAKES.—Take a quart of sour milk and add soda enough to make it foam; then add flour until you have a thin batter. Bake them on a griddle, one at a time, each as large as an ordinary dinner-plate. Put butter and sugar on them as soon as they are cooked; pile one upon the other and serve them hot. They are very nice for dessert, and are often given to invalids, as they are very light and easily digested.

TO CLEAN WHOLE SILK OR SATIN DRESSES.—*Godey's Lady's Book* says the safest way to dry-clean a silk or satin dress of any color is to take the body off the skirt and clean each part separately. If the dress is a valuable one, take off the sleeves also. When they are cleaned, remake them; all the French workmen do it. Have two clean earthen vessels that will hold two gallons each, and put half a gallon of camphine in each; have a smooth board, six feet long and three feet wide, suitable brushes, and four or five clean sheets. Be very particular about the sheets being dry and clean. Your sheeting board is not to be encumbered with all your sheets on it; have only one on it. Begin by cleaning the body first. Put the body in the first liquor of camphine, then lift it on to the board, brush the inside well, and then the outside. When this has been done, put it back in the first liquor of camphine, then in the second, and let it drain over the second a minute; spread a sheet on the board, lay the dress on it, and directly begin and rub it dry with the clean Indian cotton cloths. While rubbing it, keep it smooth and shape it, so as that, when dry and cleaned, it will look as if it had not been wetted. Take the sleeves next. Clean them in the same manner as the body. The skirt comes next, one after another, and it is to be cleaned exactly in the same manner as the body and the sleeves, by passing it through the two camphine liquors, brushing, and sheeting it up dry before leaving it. Dispatch is the life and soul of this work, as the camphine is of such a drying nature that it requires great expedition in the cleaning: When the dress is done, it must be hung up for some hours in an airy room. The smell of the camphine will come off in a few hours in a very hot stove-room. The best method is to clean the camphine work in the afternoon and hang it in the stove-room all night

to take the smell off. Any silk or satin dress can be cleaned whole by this method, but it is safer to take the skirt off the body, which most cleaners do that intend not to be beat.

DIRECTIONS FOR KNITTING AN AFGHAN OR CARRIAGE

BLANKET.—These highly-ornamental blankets are now so much used that in the cities they are looked upon as almost a necessity, as they combine beauty with usefulness. For the carriage the usual style is four wide stripes of gay colors—such as blue, orange, purple and crimson, separated by narrow ones of black, embroidered either with palm leaves, a vine, or with dogs' and horses' heads, and finished at the ends with a fringe tied in and knotted to form a heading, or by narrowing each colored stripe to a point and putting a tassel on the points. At present, the Princess Crochet Stitch, (worked with a long needle,) is much used. It is better to use a coarse needle, as with a fine one the Afghan will be too heavy to be convenient. Four ounces of the high colors will make one stripe about a quarter of a yard wide and sufficiently long if finished without points; with them another half ounce will be required. There will be seven stripes in all, as the colors come on the outside. In crocheting the stripes together, it is rather ornamental to work them on the right side with black, and form in this way a cord between each stripe. If the Afghan is designed for the house, white stripes should be substituted for black. Fringe or tassels properly made require a good deal of worsted—at least eight or ten ounces. Double-zypher, which is the wool that should be used, costs now three dollars and a half a pound. Afghans are made for children of blue or pink and white, alternate stripes, the white being embroidered with rosebuds, and are of course much smaller. The patterns used for embroidering Afghans require so few stitches that an ordinary worsted pattern can not be very well used, although sometimes they can be found sufficiently small to be suitable.

An English writer, in some remarks on "A Lady's Dress," gives the following excellent hints on the effect of color:

"We dearly love and duly appreciate color; we have hailed with delight the resumption of the scarlet cloak this winter by our fair countrywomen, especially at a time of public mourning, when our streets have worn so monotonous and sombre an aspect. The eye has been gladdened and refreshed by the warm, bright red, set off by the black dress beneath; and the welcome effect it produced proved to our minds how much pleasure we insensibly derive from the presence of color. We are hardly aware of it until we lose it. The aspect of our crowded thoroughfares lately enables us to form some idea of what we should feel if, by some freak of fashion, the fair sex were to adopt a costume as unvaried and hideous as the present masculine attire, and if our shops, that now display all that is lovely in color and exquisite in design, had nothing more attractive to offer than broadcloth or black stuff. We should feel depressed. The eye needs the stimulant of color and variety to keep it from fatigue; and beneath our gray and colorless sky we want more color, not less. Some thirteen or fourteen years ago color was certainly at a discount in dress as well as in architecture and decoration. That there has been a revival in its favor no one will deny."

COFFEE.—A friend informs us that parched sweet corn is excellent to mix with Java coffee—half and half.

Young People's Page.

THE GOLDEN MAXIM OF SIR MATTHEW HALE.

A Sabbath well spent
Brings a week of content,
And health for the toils of to-morrow;
But a Sabbath profaned,
Whate'er may be gained,
Is a certain forerunner of sorrow.

A Good ghost story is told in *Buckland's Curiosities of Natural History*: "Speaking of ghosts, I have heard that some years ago, there was a lone house standing by itself near a plantation, not far from Guildford. This house nobody would ever take because it was haunted, and strange noises heard in it every night after dark: several tenants tried it but were frightened away by the noises. At last, one individual more courageous than the rest, resolved to unravel the mystery. He accordingly armed himself cap-a-pie, and having put out the light remained sentry in one of the rooms. Shortly he heard on the stairs pit, pat; a full stop, then pit, pat; a full stop again. The noise was repeated several times, as though some creature, ghost or no ghost, was coming up stairs. At last the thing, whatever it was, came close to the door of the room where the sentry was placed and listening; his heart, too, chimed in with the tune pit, pat, rather faster than it was wont to do. He flung open the door—hurry, skurry, bang; something went down stairs with a tremendous jump, and all over the bottom of the house the greatest confusion, as of thousands of demons rushing in all directions, was heard. This was enough for one night. The next night our crafty sentry established himself on the first landing with a heap of straw and a box of lucifer matches; soon all was quiet. Up the stairs again came the pit pat, pit pat. When the noise was close to his ambush he scraped his match and set fire to his straw, which blazed up like a bonfire in an instant; and what did he see? only a rabbit, who stood on his hind legs, as much astonished as was the sentry. Both man and beast having mutually inspected each other, the biped hurled a sword at the quadruped, who disappeared down stairs quicker than he came up. The noise made was only the rabbit's fore and hind legs hitting the boards as he hopped from one stair to the other. The rabbits had got into the house from the neighboring plantation, and had fairly frightened away by their nocturnal wanderings the rightful owners thereof. The more courageous sentry was rewarded for his vigil, for he held his tongue as to the cause of the ghost. He got the house at a reduced rent, and several capital rabbit pies made of the ghosts' bodies into the bargain.

THE CHILDHOOD OF SELF-MADE MEN.—Sir EDWARD SAUNDERS, Chief Justice of England in the reign of Charles II., was once a poor beggar boy, strolling about the streets, with no knowledge of his parentage. Sir THOS. GREENSIAM, who under the patronage of Elizabeth, became the founder of the Royal Exchange, in London, was the son of a poor woman, who, while he was an infant abandoned him in the fields, and his life was preserved by the chirping of a grasshopper, which attracted a little boy to the place where he lay. Our own HAMILTON was the of-

fice boy and runner of his patron. WILLIAM JONES, the friend of Madison and Jefferson, once Secretary of the Navy, and first President of the United States Bank,—served his apprenticeship to a ship-builder. All have read of the sexton's son, who became a fine astronomer, by spending a short time every evening gazing at the stars, after ringing the bell for 9 o'clock. Sir WILLIAM PUIPPS, who at the age of forty-five had attained the order of knighthood, and the office of high sheriff of New England and Governor of Massachusetts, learned to read and write after his eighteenth year, and whilst learning the trade of a ship-builder in Boston. DAVID RITTENHOUSE, the American astronomer, when a plow-boy, was observed to have covered his plow and the fences with figures and calculations. JAMES FERGUSON, the great Scotch astronomer, learned to read by himself, and mastered the elements of astronomy while a shepherd-boy, in the fields by night.

A TIMELY SCRUBBING.—"Abigail! water—soap—towels—quick!—a brush—get me his tooth-brush, nail-brush, scrubber—anything. Hurry, quick—the brown soap—anything! Oh! fill his mouth—plaster it in—the nasty, filthy stuff! Hold him, James! hold his mouth open, head back—fast, James!" and all this in a perfect tempest of excitement; and hastily throwing a towel around the boy, and rolling up her sleeves, she enters upon the cleansing operation.

"Good gracious? Mrs. Osborne, what is the matter! You're goin' on drefful," said Abigail, hardly knowing whether to laugh or to cry at the strange catastrophe.

"Has he hurt himself, Mrs. Osborne?" ventured to inquire James, holding the struggling boy in his firm grasp. "Has he got the toothache? What ails you, Willie?"

"Tobacco, James, tobacco!" eagerly resumed Mrs. Osborne. "Our boy, our Willie, chewing pig-tail!—had his mouth full—teeth all black—tongue all dirty—breath—ah! pah! shall I ever get it clean?" And in went the soap and the dripping brush, until the child's mouth looked like a shaving-pot, and he was nearly strangled in his efforts to resist the offensive application.

"Hold still, child, hold still," she exclaimed; "soap's clean, but tobacco isn't! Ah! the dirty, poison stuff! Hold still; I'll scrub it off if I can. There, now, rinse your mouth; rinse it well; gargle the water in your throat;" and the mother, suffering the flurry to subside, sank into a chair. The three witnesses stood by amazed.

"If ever I seed sich a time!" said Abigail, as she returned, laughing, to her cooking-stove.

"Soap's healthy; they say it cures bile," remarked James, dryly, as he proceeded to his ordinary routine of business; "but I declare 'tain't so pleasant to have it chunked down your throat at that rate."

"Rinse it well, Willie," said his mother; "take plenty of water—three, four, a dozen times."

There was no need of that exhortation, for more rinsings and garglings than could be counted were necessary to take the taste of that strong, coarse soap out of the poor child's mouth. At last, after gaspings and swallowings innumerable, he recovered his speech, while tears of anger, fright, surprise or shame, or perhaps all together, flowed freely down his cheeks.

"You're too bad, mother; you 'most killed me. 'Twan't pig-tail at all—'twas honey-dew."

"'Twas tobacco, child, tobacco; that's what it was, and that's enough. No matter what the name is; no matter how much they honey and sweeten it up; 'twas tobacco, the filthy poisonous weed, in my Willie's mouth. What do you think father'll say?"—*Boys' Companion.*

THE TWO WAYS.—"There are two ways of doing it," said Pat to himself, as he stood musing and waiting for a job. "If I save me four thousand pounds, I must lay up two hundred pounds a year for twenty years, or I can put away twenty pounds a year for two hundred years—now which shall I do?"

Miscellaneous.

LEGAL WHISKERS.

As o'er their wine and walnuts sat,
Talking of this and then of that,
Two wights, well learned in the law—
That is, well-skilled to find a flaw—
Said one companion to the other:
"How is it, most respected brother,
That you, of late, have shaved away
Those whiskers, which, for many a day,
Had ornamented much your cheek?
Sure, 'twas an idle, silly freak."
To whom the other answer gave,
With look half merry and half grave:
"Though others be by whiskers graced,
A lawyer can't be too bare-faced."

THE TOMB OF NAPOLEON.—An Englishman, some years since, visited the tomb of NAPOLEON, and indited in the register a verse on the ex-Emperor to this effect:

Bony was a great man,
A soldier brave and true;
But Wellington did lick him at
The field of Waterloo.

A Yankee visited the place soon after, and wrote immediately under it:

But greater still and braver far,
And tougher than shoe-leather,
Was Washington, the man wot could
Have licked them both together.

The next visitor was a Frenchman, who, like all his countrymen, was deeply attached to the memory of NAPOLEON. He read the first stanza with horror and disgust. The Yankee skipper's addition next attracted his eye. He started as he read—gasped, grinned, and danced about the room in a paroxysm of indignation, screaming, "Monsieur Bull is one grand brute, but le frere Jonathan is one savage—horrible! *Sacre diable!* I shall cut him in vera small pieces." He called for his horse and rode post haste to town, and sought the Yankee every where. Alas! the bird had flown.

AN AMERICAN BOY INSTRUCTS NAPOLEON.—Walking the other day on the beach at Biarritz, his Majesty happened to meet an intelligent-looking boy, about eight or nine years old, who took off his hat as he passed. The Emperor courteously returned the salute, and said: "Are you English?" "No," answered the boy very quickly, and drawing himself up, "I'm American." "Oh, American, are you? Well, tell me, which are you for, North or South?" "Well, father's for the North, I believe; but I am certainly for the South. For which of them are you, Sir?" The Emperor stroked his moustache, smiled, hesitated a little, and then said: "I am for both." "For both, are you? Well, that's not so easy, and it will please nobody." His Majesty let the conversation drop, and walked on.—*Paris Correspondence London Shipping Gazette.*

THE BEST TIME TO FRET.—Two gardeners had their crops of peas killed by the frost, one of whom, who had fretted greatly and grumbled at his loss, visiting his neighbor some time after, was astonished to see another fine crop growing, and inquired how it could be. "These are what I sowed while you were fretting," was the reply. "Why, do you never fret?" "I put it off till I have repaired the mischief." "Why, then there's no need to fret at all." "True; that's the reason I put it off."

GOD GOVERNS BARN.—A wealthy capitalist, who made the most of his own fortune, and, what was hard taken care of it, gives the following as the secret of success: "Honor the Lord with all thy substance, with the first fruits of all thine increase; so shall barns be filled with plenty, and thy presses burst forth with new wine." The philosophy of the matter is simple: *God governs barns.* We are willing to allow that He governs nations, and guides Parliaments, and directs battle-fields. But SOLOMON, moreover, knew that he presides over wheat fields, stables and wine-presses. I acknowledge that God is to be worshiped in church with prayers and psalms; but SOLOMON will have it that he is to be praised also with threshing implements and grain-wagons. Reader, do you act as if you agree with him?—*New England Farmer.*

MATHEMATICAL DEMONSTRATION.—The late mathematician, Prof. VINCE, of King's College, Cambridge, being once engaged in a conversation with a gentleman who advocated duelling, is said to have thrown his adversary completely *hors du combat* by the following acute and characteristic reply to his question: "But what could you do, Sir, if a man told you to your very face 'You lie?'" "What could I do? Why, I wouldnt knock him down, but I'd tell him to prove it—prove it, Sir, prove it," I'd say. If he couldnt, he'd be the liar, and there should have him; but if he did prove that I lied, I must e'en pocket the affront, and there I expect the matter would end."

EPITAPH IN KIZMURRY CHURCH-YARD.

This stone was raised by Sarah's lord,
Not Sarah's virtues to record—
For they're well known to all the town—
But it was rais'd—to keep her down.

ALL THE GOLD IN THE WORLD.—Estimate the yard of gold at 2,000,000 pounds sterling—which it is in round numbers—and all the gold in the world might, if melted into ingots, be contained in a cellar twenty-four feet square and sixteen feet high—so small is the cube of yellow metal that has set population on the march, and roused the whole world to wonder.

The contributions of the people in the time of DAVID, for the Sanctuary, exceeded £6,800,000.

The gold with which SOLOMON overlaid the "Most Holy Place"—a room only thirty feet square—amounted to more than thirty-eight millions sterling.

SHERIDAN'S REPLY TO A DUN.—One of SHERIDAN'S creditors had frequently called upon him for a small amount. The bill had been so often presented to the mad wag that the collector complained of its soiled and tattered state, and said he was ashamed of it. "I'll tell you what I'd advise you to do with it, my friend," said SHERIDAN: "take it home and write it upon parchment."

As the frost to the bud, and the blight to the blossom, even such is Self-interest to Friendship: for Confidence can not dwell where Selfishness is porter at the gate.

It is with narrow-souled people as with narrow-necked bottles—the less they have in them the more noise they make in pouring out.

News Items.

GEN. DAVIS has been indicted for manslaughter.

PAPER has risen thirty-six per cent., on the pound.

GARIBALDI has been removed to Spezzia, and is still very ill.

ILLINOIS, under the last call, sent thirty-nine regiments into the field.

SERIOUS resistance was made to the draft in several towns in Michigan.

ABOUT 25,000 bales of cotton arrived at Liverpool from Bombay in one day.

It is said that there are now 1000 officers absent from their corps without leave.

THE *Alabama* has a crew of 125 men, and is fully armed, but he is not a fast boat.

IRON clads are to be placed in the New York and Boston harbors to protect them.

SENATOR RICE, of Minnesota, has declined the appointment of Major-General in the army.

THE total number of volunteers raised from July 2d to Oct. 23d, 1862, in the State of New York, is \$3,300.

IN the Richmond markets, wheat is \$4 per bushel, and flour \$25 barrel. Whiskey, \$10 to \$15 per gallon.

COUNT DE GASPARIN, a patron of agricultural improvement in France, has just died, at the age of 79 years.

It is estimated that there will be 600,000 persons in England dependent on charity during the coming winter.

NEW and stringent orders have been published in the army, making desertion punishable by death in all cases.

THE insurance on American ships has advanced from 3 to 5 per cent., in consequence of the ravages of the *Alabama*.

THE U. S. steamer *Montgomery* captured a fine side-wheel steamer, loaded with munitions of war, about 50 miles from Mobile.

GEN. MITCHELL died at Beaufort, S. C., of yellow fever. His two sons were ill in the same house at the time, but could not see him.

A CLEVELAND paper says that the people of that town are using mouse-traps, old jack-knives, and shirt buttons, for small change.

THE captain of the famous rebel privateer *Sumpter*, was killed on the 15th of October, by his first officer, who has been committed to trial.

AN extra of a Houston paper confirms the report that the Rebels had left Galveston, and the city was (on the 5th) occupied by the Union troops.

ALIENS in the South seem to be losing faith in the Confederacy. On the 21st, no less than 300 applied to the British Consul for passports to go North.

MESSES. GLASS, ELLIOTT & Co., write to CYRUS W. FIELD very openly of the Atlantic Cable, and offer to take the contract on the most liberal terms.

THE latest accounts from the Colorado mines, are rather discouraging as to placer diggings, but extensive quartz ledges give rich prospects, both of silver and gold.

THE whole number of slaves in the District of Columbia, that have been presented by their owners to the commissioners for compensation, has been about 3000.

TWO ladies from Virginia, who had been spending some time in Washington, were arrested. One of them had 800 ounces of quinine concealed about her person.

The Pacific Telegraph works well. A message sent from New York at 5 o'clock in the afternoon, reaches there a little after two, nearly three hours before it was sent.

MR. GLADSTONE's speech in favor of the South, created quite a panic in Manchester. Many manufacturers stopping their mills altogether. He has since modified his remarks.

MR. CAMERON, Minister to Russia, has returned in the *Scotia*. He says three enormous iron-clad rams are being built in the British ship-yards for the Southern Confederacy.

FOUR of the nurses in one of the Washington hospitals—three women and one man—have been arrested for stealing articles belonging to the Government, and also from dying soldiers.

GEN. ROSECRANS reached Nashville on Monday, the 10th, and there are signs of a steady and rapid advance after the enemy, reported to be retreating as rapidly as possible out of Tennessee.

AN officer from the West, says that the contrabands who come to our lines, are so impressed with their own importance, and have such a contempt for Yankees, that they are quite unmanageable.

A UNION officer became fascinated with a rebel young lady, and one morning went over to breakfast with her—but she, as false as fair, betrayed him to her friends, and he was taken prisoner.

A THOROUGHLY Anti-Slavery paper, in the French language, has lately been started in New Orleans. The first number reproduces a letter, written ten years ago by VICTOR HUGO, to a Haytian poet.

THE decrease in cotton may be realized by comparing the amount of bales received at Liverpool on July 4th of 1861, and the same day of this year. On the former it was 1,168,300, and on the latter 181,240.

It has been decided in the Supreme Court in the State of New York, that adding water to milk is not properly adulteration, and therefore that it is not punishable under the Milk Law lately passed by the Legislature.

GEN. POPE recently sent from St. Paul, Minnesota, by telegraph, the names of 324 Sioux Indians, who were sentenced to death. The dispatch cost \$400. POPE evidently thought that the Indians would not "keep."

LIEUT. COL. LUDLOW has been successful in making an exchange of prisoners. All the officers and men captured at Mumfordsville, Ky., in September last, are now ready to take the field. They number about 4000 men.

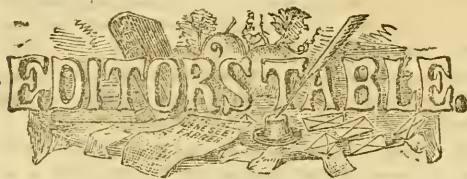
A DESTRUCTIVE fire took place at Harper's Ferry, on Tuesday, Oct. 25th. Some teamsters were cooking their dinner under the trestle work near the bridge. Twenty-four loaded ears were destroyed, and 300 feet of the trestle work.

THE blacksmiths employed in the Charlestown navy yard, 120 in number, marched in a body to the commandant's office, and demanded higher wages; but they finally returned to work, on the assurance that the subject was already under consideration.

THE *London Daily News* says, in speaking of Gov. MOREHEAD's speech in Liverpool, that he has proven to the shame and confusion of his predecessors in Europe, that "with the South Slavery is the beginning, middle, and end of the whole revolution."

ON Sunday night, after the order for the removal of General M'CLELLAN had been received, the officers of the army of the Potomac gathered at his headquarters to say farewell. The only toast was that proposed by the General himself: "The Army of the Potomac."

CAPT. MULLAN, of the army, recently arrived in New York, on his way to Washington from Oregon, where he was sent four years ago to construct a wagon road from the navigable waters of the Columbia to the Missouri river. The work is done, and a fine road of over 600 miles is in use.



THE GENESEE FARMER FOR 1863.

The present number concludes the volume of the *Genesee Farmer* for the year 1862.

The close of each volume is an important epoch in the life of an editor and publisher. During the year he has become more or less familiar with the names of thousands of his readers, and he cannot but feel some degree of solicitude as to how many will feel sufficient interest in the paper to promptly renew their subscriptions.

In our own case we feel confident that there will be found few intelligent readers who will be willing to give up the *Farmer*. We have during the past season labored hard to make it a useful, instructive and interesting agricultural and horticultural journal, and know that such labor always meets with its reward.

The *Genesee Farmer* is so cheap that we are obliged to adopt the system of stopping the paper as soon as the subscription expires. We cannot afford to let the paper run on longer than it is paid for. Neither do our subscribers wish us to do so. We trust, therefore, that *all* our readers will renew their subscriptions at once. We do not want to miss a *single name* from our old list. We hope all our friends will renew their subscriptions promptly.

It is our determination to make the *Farmer* still more worthy the patronage it has so long enjoyed; and we have no hesitation in asking all our old readers not only to renew their own subscriptions, but also to ask their neighbors to give the paper a trial for a year.

TO OUR CANADIAN FRIENDS.—The *Genesee Farmer* has always had a large circulation among the intelligent agriculturists of Canada West, and never larger than at present. At this time last year there were fears that the friendly relations which have so long existed between the two countries might be broken; but happily they have all past away. The soil and climate of Western New York and Western Canada are very similar, and the *Genesee Farmer* is as well suited to Canadian farmers and gardeners as to those of the State of New York and Pennsylvania.

We have been compelled to advance the price of the *Farmer* ten cents a year. This course has been rendered necessary by the great increase in the price of paper, caused by a scarcity of cotton rags. We feel sure that our liberal and intelligent Canadian friends will not object to the small advance. In clubs of six and upwards, the price of the *Farmer* is still only FIFTY CENTS a year.

We shall prepay the American postage on all papers and Rural Annuals sent to Canada without extra charge.—Some of our American readers may think that it is not right to send a paper to Canada for less than it costs them. But they must recollect that the present premium on Canadian money will fully make up the difference.

We will take Canadian postage stamps for all sums less than a dollar.

LOOK AT THE SPECIAL PREMIUMS.—We have never before offered such valuable Specific Premiums to those getting subscribers. To every one sending us six subscribers at our lowest club rates of Fifty Cents, we send prepaid by return mail a copy of the *Rural Annual* for 1863. For ten subscribers we send a copy of the *Farmer* and *Rural Annual*; for sixteen subscribers we send a dollar's worth of choice garden seeds, or a bound volume of the *Farmer* for 1860, (the best of the series,) and also a free copy of the *Farmer* and *Rural Annual* for 1863. For larger clubs, still more liberal premiums are offered. See last page of this number.

FORM CLUBS—FORM CLUBS!—The price of the *Genesee Farmer* in clubs of six and upward is only *Fifty Cents*; and in addition to this the members of the club can each have a *Rural Annual* and *Horticultural Directory* for 1863 for fifteen cents! Let a club be formed at every Postoffice. Any one of our readers can act as Agent, and will receive our best thanks for so doing. And this is not all: he will take a valuable Specific Premium or Cash Prize. See last page of this number.

"WHO CAN COMPETE FOR THE CASH PRIZES?"—Anybody and everybody. We have no restrictions. All is honorable and above board. There is no favoritism. You can compete and have just as good a chance to take the highest Prize as anybody else. There are eight Cash Prizes, and if you should not take the \$50, you may take the \$30 or the \$20 Prize. No one who really undertakes to get subscribers can fail to take one of the highest Cash Prizes.

\$137.—Our Cash Prizes amount to One Hundred and Thirty-seven Dollars. There are only a very few of our Agents who ever compete for them, and the indications are that there will be fewer this year than ever before. Will not our friends do us the favor to take one of these Cash Prizes? We offer the prizes, and the money will be paid to those getting the largest clubs, however small they may be.

CASH PRIZES—CASH PRIZES—CASH PRIZES!—So few compete for our Cash Prizes that they will undoubtedly be taken for very small clubs. There is not a man or active boy anywhere who can not secure one of the highest.

MONEY MAY BE SENT BY MAIL AT OUR RISK.—And if the papers do not come in due time write us at once. Letters are sometimes lost in the mail, but not often, and when they are it is our loss. Be sure, however, to address them properly, and drop them in the Postoffice without saying a word to *anyone* on the subject.

SPEAK TO YOUR NEIGHBORS.—Will not our readers oblige us by calling the attention of their neighbors and friends to the *Genesee Farmer*, and asking them to subscribe? We will cheerfully send specimen copies, subscription lists, &c., to all who desire them.

ONLY FIFTY CENTS A YEAR.—In clubs of six and upward the price of the *Genesee Farmer* is only *Fifty Cents* a year. Is there one of our subscribers who can not induce five of his neighbors to join him at this low rate?

THE RURAL ANNUAL AND HORTICULTURAL DIRECTORY FOR 1863.—This beautiful little book is now going through the press. It will be ready in about two weeks. We have made some improvements in the work. It is abundantly illustrated, and contains 120 pages, filled with valuable information to farmers, horticulturists, and all others interested in rural pursuits. No reader of the *Farmer* should be without a copy of this work. The price is only 25 cents a year, and it is sent by mail, postage paid.

In clubs of six and upwards, the RURAL ANNUAL will be clubbed with the *Farmer* at fifteen cents per copy, postage paid! We hope all our agents will club the *Rural Annual* with the *Farmer*. The matter is entirely different in the two works, and no reader of the *Farmer* should be without the *Annual*.

THE CHEAPEST AGRICULTURAL AND HORTICULTURAL BOOK IN THE WORLD IS THE RURAL ANNUAL AND HORTICULTURAL DIRECTORY.—It contains as much matter as many dollar books, and yet it will be sent prepaid by return mail to any address for twenty-five cents. And still further: we authorize all our agents to club it with the *Farmer*, in clubs of six and upward, for fifteen cents! Not a solitary reader of the *Farmer* should fail to get the *Rural Annual* and *Horticultural Directory* for 1863.

DON'T FORGET THE RURAL ANNUAL.—We are particularly desirous that every reader of the *Farmer* should have a copy of the *Rural Annual* for 1863. It is a splendid number. The price to clubs is only fifteen cents, and it will be sent, prepaid by mail, to any address.

WE MUST DEPEND ON THE BOYS.—One of our old agents writes: "I have not time to attend to getting subscribers for the *Genesee Farmer* for next year, but I have two boys who are going to take hold of the matter." That is right. Let the boys act as agents for the *Farmer*. They will have time this winter to visit their neighbors and ask them to subscribe. We offer some special premiums to the boys, for subscribers at 60 cents a year, which are certainly most liberal. But the boys need not confine themselves to these. They can compete for our cash prizes, and for the premiums offered to "Everybody." See last page of this number. We will send subscription lists, specimen copies, &c., to all who wish them. Let us hear from the boys.

A GOOD IDEA.—A farmer asked his neighbor if he would join a club for the ——— at \$1.50 per year? "No," said he, "I am going to economize next year." "Well," said he, "as you cannot do without an agricultural paper, give me 50 cents for the *Genesee Farmer*.—You will save a dollar." Our friend might have added, too, that he would get as much agricultural and horticultural matter for the half dollar as for the \$1.50—and certainly of quite as high a character.

OUR PREMIUMS.—On the last page of this number will be found our premium list for next year. It is more liberal than ever before. There are premiums for the ladies, for the boys, and for everybody,—book premiums, seed premiums, and cash prizes. The premiums will be paid promptly, and there is not one of our readers who cannot secure them by a little effort at this time.

NOTES ON THE WEATHER FROM OCT. 15TH TO NOV. 16TH. The weather had been cloudy and rainy, and generally unpleasant through the first half of October, and so it was through the rest of the month. The heat of the first half was some degrees above the mean for 25 years, and of the last half a little below, and of the whole month the mean heat was 50.9° or 3° above the average for 25 years.

The water fallen was 3.95 inches in the month. Rain on the 25th changed to snow in part, and through the night and on the 26th, very wet, so that the trees were overloaded in the evening, and many were broken down or much injured, as at least a foot of snow must have fallen in thirty-six hours, though half of it perhaps had melted. This snow storm was a heavy rain on the Pottomac and Harper's Ferry, and along the east side of the Allegany ridge.

Leaves of hard maple fell before any frost, from being mature. The variegated hues of autumn were splendid before any frost.

Such snows are uncommon in this month; yet in 1844 a storm of dry snow fell over Middle and Western New York, near the last of the month.

The last two days were warm, and the 31st was fully Indian summer.

November gave us of Indian summer its first two days, very beautiful, delicious weather. After this the weather was unpleasant to the middle.

The mean heat of the half month was 39.4°, being 1.8° below the average for 25 years. The hottest noon, 66° on the 1st, and the coldest morning, 27° on the 15th, and the coldest evening, 22° on the same day. This was much the coldest day.

An extensive snow storm from the east, with rain along the coast, began in the evening of the 6th at Fortress Monroe; reached Washington and Baltimore early next morning of the 7th, and New York about noon, where the northwest wind gave a heavy blow and storm of sleet, hail and snow; reached Boston and other places eastward in due time, extended westward, beginning at 9 P. M. of the 7th at Rochester; at midnight at Buffalo, and Cleveland at 4 A. M. of the 8th. It was a northeast storm at Rochester, and across the State into Massachusetts, over to Boston.

Our wheat harvest was chiefly in the third week of July. On July 26th, one of our citizen tourists found the reaping of wheat just begun in the south part of England, that is, from Liverpool to London; the harvest being later in higher latitudes of England. When he visited Scotland, on the 29th of September, the ripe wheat was then being cut, and a considerable of it was still green and not mature enough for cutting, and could not have been reaped before the tenth of October. In climates so different, Divine Providence secures the production of the finest wheat.

JOSEPH WATSON, Esq., of Clyde, N. Y., writes: "Please find enclosed 60 cents, your 'war price' for the *Genesee Farmer* for 1863. [I want your paper, as I find many good things in it that I can get in no other way.]"

SEVERAL INQUIRIES, communications, and other interesting matter, have been crowded out of this number. They shall appear in the January number.

OUR TERMS.—The price of the *Genesee Farmer* is 60 cents a year for single subscribers, and in clubs of six and upward 50 cents a year.

The price of the *Rural Annual* is 25 cents a single copy, or \$2.00 per dozen. In clubs of six and upward the price of the *Farmer* and *Rural Annual* together is 65 cents.

The postage on the *Farmer* is 3 cents a year in the State of New York, and in all other States 6 cents a year, excepting California, Oregon, &c., where it is 12 cents. The postage to Europe and other foreign countries, which must be prepaid at this office, is 24 cents a year. We prepay the postage on all papers sent to Canada and other British Provinces without extra charge.

A CHEAP AND VALUABLE AGRICULTURAL LIBRARY.—We can furnish about a dozen complete sets of the *Genesee Farmer* for 1855-6-7-8-9, '60, '61, and '62, handsomely bound, with an index, title page, and everything complete. Those who wish to get them should do so at once. We will forward any single volume, prepaid, by mail for \$1, or the whole series of eight volumes, prepaid, by express, for \$6.50. This will probably be the last opportunity of getting a complete set, as we have not more than a dozen copies of 1855 left.

NO DANGER OF FAMINE.—Our esteemed friend J. J. THOMAS, of Union Springs, Cayuga county, N. Y., in a private note under date November 6, says: "We have had a beautiful autumn, so far—no frost yet severe enough to kill dahlias, potato stalks, &c. Our cellars are abounding with apples, pears and vegetables, and however 'hard' the times may be we do not seem to be in a way to starve at present." No, we shall not starve. Never was the product of our soil more abundant. How often in the history of the world have Pestilence and Famine been added to the horrors of War. Ours has been a happier lot. Though cast down, we are not destroyed. While we sympathize with the thousands who mourn the loss of friends slain in battle, let us eat our Thanksgiving dinner with grateful hearts to Him who has crowned the year with plenty, and hope and pray that peace, unity and fraternal love may soon extend throughout all our borders.

BIG PUMPKINS.—MR. ORANGE JUDD, of the *American Agriculturist*, offered some prizes for the biggest pumpkins, squashes, etc. The show came off a few days since. The prize pumpkin was raised by W. D. HALL, of Wallingford, Ct. It weighed 270½ lbs. The second prize was taken by a pumpkin weighing 221½ lbs., and the third by one of Mr. HALL's, weighing 203 lbs. Mr. HALL also took the prize for the largest yield from a single vine. The vine bore 42 pumpkins, weighing in the aggregate 1,259 lbs., or an average of nearly 30 lbs. each.

"THE BEST IN FIVE YEARS."—We heard a farmer make this remark the other day. "Best what?" we asked. "The best year for farmers," he answered. "Crops have been good, and prices for everything except fruit, beef and pork, are satisfactory."

SATISFACTORY.—We have not received a single letter complaining of the small increase in the price of the *Farmer*.

POP CORN.—A Vermont correspondent of the *Farmer* writes: "Pop corn is one of the luxuries of the farm. Neither is it necessarily confined to the farm. Every one who owns or tills a half acre of land, can and *should* have his plot of pop corn. It is easily grown, and with undoubt pays the cost. It is really a household necessity almost as much so as 'popping the question!' Popping corn works in very advantageously during the long winter evenings, to fill up the otherwise unimproved 'leisure moments.' We have a relish for it, and we enjoy it.—Give us *pop corn*! What say the boys—and the girls?"

BOUND VOLUME OF THE FARMER FOR 1860.—A correspondent justly considers this one of the best volumes of the *Farmer* yet published. It will be sent to any address prepaid, by mail, for \$1. But we will tell any of our young readers a better way to obtain it. Speak to *five* of your neighbors, and get them to give you 60 cents each for the *Genesee Farmer* for 1863. Send us the \$3 and we will forward you, prepaid, by return mail, the *Farmer* for 1860, handsomely bound, with a complete index, title page, etc.

JOHN HAVEN, Esq., of Fort Washington, N. Y., writes "I perceive that the price of the *Farmer* is advanced to sixty cents per year—little enough for so valuable a sheet. I believe my remittance last year covered two years' subscription; nevertheless, I now inclose the additional ten cents." This is the right spirit, but it is more than we ask. All who have subscribed for next year previous to the advance in price, will of course receive their papers without additional charge.

A GOOD DEVON COW.—J. W. SANBORN, of Lyndon, Vermont, writes: "Please just say to your 'Durham' friends, who denounce our Devons as *too small* to be profitable, that there was a Devon Cow exhibited at the late 'Caledonia Farmers' Fair,' at Lyndon, Vt., whose live weight was 1,900 pounds."

BIG BEETS.—THE REV. GEO. FREEMAN, of Parma, N. Y., informs us that he raised this season two beets of the Bassano variety, that weighed *seventeen* lbs. each. Two years ago he raised one of the same kind that weighed 29½ lbs. He also raised a blood beet this year weighing 15 pounds.

RURAL AMERICAN.—We have received a copy of this semi monthly agricultural paper. It is a handsome sheet, and we wish it success. A private note from Mr. MINER, informs us that, owing to the advance in paper, he has been obliged to raise his lowest club rates to 75 cents a year.

UNDERDRAINING—CORRECTION.—In our report of the discussions at the late New York State Fair in the November number, page 336, the printers make J. J. THOMAS say that he digs his drains ten rods apart. It should have been *two* rods.

SHINPLASTERS.—We need hardly say to our friends that "shinplasters," however good they may be in the district where issued, are of no use to us. For fractional parts of a dollar send, us Post-office stamps or U. S. currency.

Inquiries and Answers.

CULTURE OF TOBACCO.—(C. S. RACEY, St. Catharines, C.)
You will find an article on this subject in the *Rural*
Journal for 1863. *Barry's Fruit Book* is a good work for
us. We can send it to you, prepaid by mail, for \$1.25.

Agricultural Items.

PREPARED EXPRESSLY FOR THE GENESEE FARMER.

Z. POTTER, of Union Town, Ill., has obtained a pa-
tent for a new evaporator for making sugar from sorghum.

GENTLEMAN in Ireland, **CHARLES KENNY**, claims to
have discovered a method of cooking food for stock *with-
out fire!* What next?

We were told last spring that an immense amount of
wheat would be raised this year in Ireland. It now turns
out that *less* was sown than usual.

There are complaints from different sections of the
country of the difficulty of completing the work on the
farms on account of the scarcity of labor. Corn, potatoes
and other crops are still in the fields.

In England, as in this country, barley seems to be
scarce and high. The last *Mark Lane Express* says it has
advanced three cents per bushel, and the *Irish Farmers'
Gazette* of November 1, says of the Dublin market: "The
condition of barley shown is so bad as to render it mostly
unsalable."

At the last monthly meeting of the Royal Agricultural
Society of Ireland, some samples of wheat, barley, oats,
rye, flax and hay seeds were presented by the Secretary
of the Canadian Government Emigration Association,
which attracted much attention. Great efforts are being
made abroad to induce emigration to the cheap lands in
western Canada.

ALLUDING to our experiments on Indian corn, a corre-
spondent of the *Country Gentleman* says: "The single
experiment quoted from the *Genesee Farmer* is too limited
to settle any point. It should be repeated many times,
in order to show that other influences were not acting at
the same time and controlling the result." Very true.
This is what we have always said. Let others repeat
the experiment. The work should not be left to one man. Let our
correspondent do *his* share.

The Irish papers are filled with gloomy accounts of the
weather. The *Mayo Constitution* says: "The conse-
quence of the continuous fearfully tempestuous weather
is really appalling to contemplate—each day being more
and more unpropitious for harvesting operations." The
Wexford Journal says: "The weather continues more and
more unpropitious for saving the grain crops. From the
15th to the 28th of October five and a half inches of rain
have fallen, or about four times the average rain fall of
the season. This state of things, with more than half of
the crops still exposed in the fields, has produced a de-
pression in the minds of the farming community, such as
we have never seen equalled." The *Irish Farmers' Ga-
zette* of November 1, also contains communications com-
plaining of the wet weather and the "backward state of
the harvest." Crops out in the fields in November is not
a pleasant subject of contemplation.

Literary Notices.

**LONDON, EDINBURGH, NORTH BRITISH and WEST-
MINSTER QUARTERLY REVIEWS.** Republished by
LEONARD SCOTT & Co., 79 Fulton street, New York.

**BLACKWOOD'S EDINBURGH MAGAZINE, (Monthly.) New
York: LEONARD SCOTT & Co.**

For some reason there are no essayists in the United States,
which at all equal those of the Old World. Our historians, poets,
and novelists, rank side by side with those of Great Britain, but
essay-writing seems to require an older and more thorough cul-
ture than our literary men have yet attained. Genius will not
make an essayist. A poet can rise above the want of learning,
and by the strength of his inspiration win a place in the hearts
of the people which gives him undying fame. An essayist has
no such empire—his place is in the intellect, and for him study
and culture are every thing. To those who enjoy receiving the
cream of foreign literature, prepared for them by skillful hands,
and to whom pure and elegant English adds a charm to thoughts
and opinions, interesting in themselves, these replications of
the Quarterlies are invaluable. The *Westminster* is objected to
by many on account of its infidel tendencies; and on all subjects
in any way connected with the Bible, or with the sentiments of
the religious world, it is utterly unreliable. It has one advantage
over all the other Quarterlies—it devotes several pages to cotem-
porary literature, which contain notices of almost every book on
scientific, religious, or merely literary subjects, which are pub-
lished in the English, French or German languages. *Black-
wood*, which is published monthly, has, in addition to essays of
equal merit with the Quarterlies, tales written by the leading
novelists of the day. **GEORGE ELLIOT** and **BULWER** are among
its contributors. At present the former is writing a series of
stories called "Chronicles of Carlingford," the second one of
which—"Salem Chapel"—is now in progress. The authoress of
Adam Bede fully sustains the reputation which her more elabo-
rate novels have won for her. **BULWER** is now contributing a
paper each month on "Life, Literature and Manners," which,
like every thing he writes, is replete with sense, wit and learning.
Blackwood, is \$3.00 a year; each of the Quarterlies \$3.00;
Blackwood and any one of the Quarterlies, \$5.00; the four Quar-
terlies and *Blackwood* \$10.00.

NEW AMERICAN CYCLOPEDIA. Volume XV. Spiritual-
ism—Uzziale. New York: D. APPLETON & Co.

Article on United States very full. Comprehensive tables of
Population, Agricultural Statistics, Manufactures, Domestic Ex-
ports, Imports from Foreign Countries, Commerce of the United
States, Value of Domestic Manufactured Articles, Educational
and Religious Statistics, Statistics of Newspapers and Periodi-
cals, Annual Revenue and Expenditures. Article on United
States Literature reviews briefly but fully the whole subject, and
will be found valuable for reference.

**THE ADVENTURES OF PHILIP ON HIS WAY THROUGH
THE WORLD.** By W. M. THACKERAY. New York: HAR-
PER & BROS.

This new work of Mr. THACKERAY's which has been published
in serial form, but is now finished, is so much better than the
Virginian—that the public will welcome it eagerly; for with all
his affectations he has many admirers, who will, of course, read
his book. His detractors must read it, too, in order to abuse it
intelligently, for in this case the stock criticism will hardly
answer, for there is only one or two really wicked characters in
the book—and they are not women!

**CHRONICLES OF CARLINGFORD—THE DOCTOR'S
FAMILY.** By the author of "Adam Bede."

These papers are being published in *Blackwood*, and this one
is the first of the series. "Salem Chapel," the next one, is still
unfinished. They are like the authoress' first tales which ap-
peared in *Blackwood*, and gave her a reputation before *Adam
Bede* made her famous.

HISTORY OF FRIEDRICH THE SECOND, CALLED FREDERICK THE GREAT. By THOMAS CARLYLE. In four volumes. Vol. III. New York: HARPER & BROS.

This new volume of CARLYLE'S *Life of Frederick the Great* will be received with pleasure by all who have read the other two, as it is pleasant when one attempts to read the life of a person to find out something concerning the acts of the individual, and not be solely occupied with the affairs of his father and grandfather. We learn that the fears expressed that this was to be a fragment, like *Macaulay's England*, are not correct, as the author has the fourth volume in manuscript, and it will be soon published.

AMERICAN BACON IN ENGLAND.—A correspondent of the *Irish Farmers' Gazette* inquires, "if the importation of American bacon into England, is likely to affect the price of pigs in Ireland?" The editor replies as follows:

"There is some expectation that the importation of American bacon may affect the prices of Irish bacon, and as a consequence the price of pigs, both fat and stores; but it is possible that it may not, for the mode of cure and the flavor of the American bacon will not make it an article of general demand amongst the middling and better classes, though it will make a plentifulness of animal food amongst the lower classes, who seldom or ever touch flesh meat. We therefore cannot advise breeders or feeders of pigs in Ireland to relax their efforts, but would rather recommend the reverse. Bacon and pigs have been much too high in price for some years past, and if they do suffer a slight reduction, so must the feeding; so that an equilibrium will be kept up. American bacon can be had in Dublin at 5d. per lb. for the best, and down to 3½d., or less, for coarser parts, which is a great boon to the poor artisan and laborer; while Irish bacon still commands 8d. per lb. retail; and there are parties in Dublin who dress and prepare the best parts of the American bacon, even to branding with Limerick and other marks, so as to deceive the eye, and sell it as Irish; but when cooked, the smell and flavor discovers the cheat."

Why cannot we make as good bacon as the Irish? We have as good breeds of pigs, and as good food. Cannot we make as good pork and bacon?

The Markets.

OFFICE OF THE GENESEE FARMER. }
ROCHESTER, N. Y., Nov. 25, 1892. }

SINCE our last report there have been few changes in the wheat market. Prices in New York have gone up and down according to the fluctuations in the price of gold and exchange on England. Prices are fully maintained, and if anything are a little higher.—Corn has advanced 3@4c; and Rye 5c per bushel. Oats have also advanced about 5c. The greatest advance has been in Barley. In this city it has advanced fully 20 cts., and in New York 25 to 30 cents a bushel since last month! Beans have also advanced about 20 cents. Butter in this city declined a little, but prices in New York are fully maintained, and are very firm. The high rate of exchange has stimulated the exportation of Butter and Cheese to an unprecedented degree. From the first of May to the 31st of October, there were exported to Great Britain from New York 15,448,171 lbs. of Butter, and during the same period of last year, only 9,732,905 lbs.

This increased demand for Butter to export was foretold in the *Genesee Farmer*. In the October number, page 325, we showed that, owing to the high rates of exchange, Butter and Cheese ought to be as high in this country as in England. Butter at that time was only worth 12 cents a pound in this city, while in London it was worth from 22c to 28c per lb. Our prediction has been so far realized, that Butter to-day in New York is worth about as much as it is in London. It ought to be worth quite as much, as the premium on exchange will more than pay the whole expense of exporting it.

Cheese, like butter, is also higher. It is said that some large extra fine dairies have been sold in New York for 12 to 12½c per pound!

There has been little change in the English markets since our last report.

There is but little change in the N. Y. Cattle and Sheep market, but a general impression prevails that prices will soon advance.—The Pork trade is unusually brisk, and fat hogs are bought up quickly by the carcass, at 6@6½c per lb., dead weight. Good corn fed hogs are worth 5c per lb., live weight, and the prospect are favorable for an advance.

NEW YORK, NOV. 24.—White wheat \$1.50@1.60; Red, \$1.35@1.45; Spring Wheat \$1.15@1.30. Rye, 55@90c. Barley, 1.50@1.60. Corn—Mixed Western 70@72c; Yellow, 75@79c; White Southern, 80@84c. Peas, Canadian, \$1.00. White Beans, \$2.20@3.00. Hay, \$12@13 per ton. Hops are steady and in demand at prices varying from 13@25c per lb., according to quality.

Butter—Orange county pails, 25@30c; full made State, 24@25c. Firkins, State, choice, 22@24c; Pennsylvania and Western Reserve, 22@24c; Firkins, Western, choice, 16@18c; fair do. 14@15c per lb.

Cheese—9@12½c per pound.
Poultry—Turkeys, common, 9@10c; choice and extra choice 11@13c per lb. Spring Chickens, choice, 10@11c; common, 8@9c per lb. Ducks, choice, 12@13c; common, 10@11c per lb.

Feathers—41@48c per pound.
Potatoes—Merces, \$2.00@2.50; Peachblows, \$1.62; Buckeyes and Prince Alberts, \$1.50@1.62 per brl.

Onions—\$1.87@2.12 per brl.
Apples—Spitzenburgs, \$1.75@1.88; Baldwins and 20-oz. Apples \$1.62@1.75; Greenings, \$1.58@1.50 per brl.

CHICAGO, NOV. 24.—No. 1 Red Winter Wheat, 95@96c; No. 1 Spring, 88@92c; No. 2, 76@77c; rejected, 66@70c. Corn, 29@31c. Barley, good to choice, 90c@1.40; common to fair, 75@90c. Oats 81@35c. Rye 46@47c. Beans \$1.25@2.25. Potatoes 65@75c per bushel and advancing. Onions, 75c@1.00 per bush. Live Chickens, \$1.25@1.50 per dozen. Turkeys, 5@6c per lb. Eggs 11@13c per doz. Butter, very firm, at prices varying from 12½c to 15c per lb. Apples, \$1.75@2.00 per brl.

TORONTO, NOV. 24.—Fall Wheat, 85@95c; Spring Wheat, 75@88c. Rye, 56@60c. Barley, 97c@1.00. Oats, 45@45c.—Peas, common, 50@55c; Prussian Blues and Black-eyed Marrow fats, 60@65c. Potatoes, 45@50c per bushel. Butter, 16@19c per lb. Eggs, 9@11c per doz. Chickens, 30@40c per pair. Ducks 35@45c per pair. Geese, 80@40c each. Turkeys, 40@75c each. Pork, \$2.50@3.50 per cwt. Hay, \$21 per ton. Straw, \$14 per ton. Wool, 85c per lb. Pelts, \$1.00 each for fresh, and 40@60c for country skins.

PHILADELPHIA, NOV. 24.—White Wheat, \$1.60@1.70; Red, \$1.45@1.50. Rye, 90c@1.00. Corn, 75c. Oats, 40@43c.—Barley, \$1.50. Clover Seed, \$6.00@6.40 per bushel. Timothy Seed, \$2.25 per bush. Flax Seed, \$2.75 per bush.

ROCHESTER, NOV. 25.—White Wheat, \$2.00@1.40; Red, \$1.15@1.20. Rye, 65@70c. Corn, 60c. Oats, 45c. Milled advancing, Shorts, 12c (13 lbs.); Coarse Middlings, 15c (20 lbs.); Fine Middlings, 40@45c (32 lbs.). Barley, \$1.10@1.25. Beans, \$2.00@2.25. Pelts fresh, \$1.50@3.00. Potatoes, 40@50c per bushel.—Apples, 62½@75c per brl. Hay—Clover, \$10; good Timothy \$18 per ton.

ADVERTISEMENTS.

A FEW short advertisements of interest to farmers—and only such—will be inserted in the *Genesee Farmer* for twenty-five cents a line, or \$2.50 per square; each insertion, payable in advance. To secure insertion, they should be sent in by the 15th of the previous month. The *Farmer* has large lists of subscribers in every State and Territory, and in all the British Provinces. (It has nearly 5000 subscribers in Canada West alone.) There is no better or cheaper medium for advertising everything of general interest to rural residents in all parts of the United States and Canada.

We will also insert a few "Special Notices," if appropriate to our columns, at fifty cents a line.

S. M. PETTENGILL & CO.

No. 37 Park Row, New York, & 6 State St., Boston, are our Agents for the GENESEE FARMER in those cities, and are authorized to take Advertisements and subscriptions for us at our Lowest Rates.

A BEAUTIFUL MICROSCOPE, MAGNIFYING SMALL objects 500 TIMES, for 28 CENTS (coin preferred.) Five of different powers for \$1, MAILED FREE. Address

F. H. BOWEN, Box 220,
Boston, Mass.

"Everybody should have a Copy."

Rural Annual and Horticultural Directory, FOR 1863.

PRICE ONLY TWENTY-FIVE CENTS:

THIS work is published at the office of the *Genesee Farmer* at the commencement of each year. It was started in 1856, and a new volume has been published each year since. The volume for 1863 is now going through the press, and will be ready in a few days. It contains one hundred and twenty pages, illustrated with many wood cuts, engraved expressly for the work, and filled with information useful to everyone interested in Rural affairs.

To the Farmer,

To the Fruit-Grower,

To the Horticulturist,

it will be found of the greatest value.

Among its contents will be found treatises

On the Principal Points in the Management of the Orchard and Garden;

On the Cultivation of the Raspberry;

On the Cultivation of Tobacco in the Northern States;

On the Cultivation of Currants;

On the Culture of Fruit;

On the Germination of Seeds;

On the Cultivation of the Chinese Sugar Cane at the North, and the Manufacture of Sugar;

On the Fuchsia, or Lady's Ear-Drop;

On the Turnip Fly;

On the Management of Barn-yard Manures;

On Ornamental Trees and Shrubs;

On Rural Architecture, Farm-Houses, Barns, &c.;

On Restoring a Worn-out Farm;

On Propagating Plants from Cuttings;

On Heliotropes and their Culture;

On Plowing;

On Dwarf Apples;

On Transplanting Evergreens;

On Grafting Old Grape Vines;

On Ice-Houses;

On Clearing Land from Bushes;

On Destroying Insects;

With scores of other articles, all of great value to every man having a rod of land to cultivate.

It will be sent by return mail, prepaid, to any address on the receipt of Twenty-five Cents.

Address JOSEPH HARRIS,
Publisher and proprietor of the *Genesee Farmer* and *Rural Annual*, Rochester, N. Y.

For Two Dollars a dozen copies will be sent prepaid by mail to any address.

THE NEW NATIONAL LOAN.

UNITED STATES SIX PER CENT. BONDS,
"CALLED FIVE-TWENTIES,"
AT PAR.

THE interest on these Bonds is at the rate of Six per cent. per Annum, and is payable 1st of May and November in GOLD. They are called "FIVE-TWENTIES," because redeemable at the option of the Government after five or within twenty years.

The coupon Bonds are issued in denominations of \$50, \$100, \$500, \$1000, and the Registered Bonds in denominations of \$50, \$100, \$500, \$1000, \$5000 and \$10,000.

To facilitate investment in them, and make them more accessible to the public, we have made arrangements to keep on hand a constant supply of all denominations for sale, at the same rate at which they are issued by the Government, viz: *Par*; Interest to commence from the date of purchase.

We are thus enabled to save parties all trouble and delay in finding Legal Tender Notes, or otherwise investing in these Bonds.

ORDERS or INQUIRIES BY MAIL WILL RECEIVE PROMPT ATTENTION, and the Bonds will be sent to any address by mail or express as desired. Payment may be made in Current Bank Notes, Drafts on City Banks, or United States Legal Tender Notes.

These Bonds are the *Cheapest Government Security now in the market*, and pay the *Largest Interest* on their cost. They are destined to become the *BEST KNOWN, MOST POPULAR, and MOST AVAILABLE*, of all the Bonds of the Government.

The operation of the National Tax Law, which it is now certain will produce double the income originally anticipated, will make the issues of the United States Government the safest and most desirable investment in the world. They are in reality a First Mortgage on every thing in the country, as no Railroad or Corporation of any kind can pay a dividend, or the interest on its own issues, until it has contributed out of its gross income, through the operation of the Tax Law, to the support of the National Credit.

These are the Bonds upon which the Government now relies, through the confidence and patriotism of the People, for continued financial support.

We keep them for sale to encourage investment in them, to give the public convenient access to them, and to aid the Government by promoting their rapid absorption; and the money invested in them through us contribute to the direct and immediate support of the National Treasury.

FISK & HATCH, Bankers,
Dealers in all Issues of Government and other First Class Securities,
38 Wall St., New York.

Deposits received and Collections made.

Government Vouchers negotiated and collected.

Particular attention given to Orders and Letters from the Country.

TO DEALERS IN AND CONSUMERS OF
ONONDAGA SALT IN THE STATE OF NEW YORK.

OFFICE OF THE SALT CO., OF ONONDAGA,
Syracuse, November 6th, 1862.

THE closing of the Mississippi River by the Rebellion, has temporarily cut off a large supply of Foreign Salt from the Western States, and correspondingly increased the demand for our Salt in that direction. To supply this demand the Company has increased the amount manufactured this season, to the full extent of the supply of brine. The usual prices were maintained during the spring and summer months, and hopes were entertained that a full supply of Salt would be produced. About the first of October, however, it became evident that the demand at the West would so far exceed the supply, as to advance prices entirely beyond the control of the Company, and we have been compelled to advance our prices for Salt to correspond somewhat to its value, in the market. We have, throughout the season, maintained stringent measures to prevent its getting into the hands of parties for speculation, and have used our utmost efforts to furnish it as directly and as cheaply as possible to the consumer.

The natural course of trade, had there been no organization controlling the distribution of our Salt, would have sent it to the highest markets, and the consumer in this State would have been compelled to pay prices corresponding with its value for the West. The Company, taking into consideration its relations to Dealers and Consumers of our Salt in this State, decided to provide for them, against the advancing prices, by a drawback corresponding with the advance in the regular list price. In our Circular, dated October 6th, we assured the Dealers and Consumers in this State, that the drawback would be adjusted in accordance with our regular List Prices, so as not to increase the net cost, for the State Consumption, to over \$1.50 per brl. for fine Salt, and in proportion for the other kinds, at the Works. Since this policy was adopted, the cost of Fuel, Barrels and Labor has advanced to such an extent that the State Trade is now being supplied at very nearly the cost of production.

From the foregoing facts it must be apparent to every one that the drawback system has been adopted solely for the benefit of Consumers in this State; and that the Company, to protect itself from loss beyond the large sum which the drawback will necessarily and legitimately amount to, must require that some trouble and responsibility shall be assumed by Dealers who supply the State demand. We trust, therefore, that the following general provisions will be cheerfully assented to:

FIRST—Parties purchasing Salt for State Consumption will pay, or assume to pay, for the same at the regular List Prices.

SECOND—The Company gives to the purchaser a stipulation agreeing to pay or refund the amount of the drawback, upon proper proof that the Salt has been sold or used for consumption in this State, and will not be removed therefrom; and that the benefit of the drawback has been given to the consumer; that is to say, that the Dealer has sold to the Consumer at a price giving him a fair profit or commission on its cost, taking the drawback into account; it being understood that in cases where the Dealer receives more than such fair prices from the Consumer, the excess will be deducted from the drawback.

THIRD—The Dealers claiming drawback, will furnish an account of the sale and disposition of each invoice of Salt purchased, stating to whom the same was sold and delivered, and at what price, verified by affidavit—the proper forms for which are furnished by the Company.

All parties interested in Salt for State Consumption, are assured that the Company will retain a full supply for that purpose.

When circumstances seem to require it, Dealers, if they so choose, will be made Agents for the Company.

nov11 J. W. BARKER, Secretary.
ON SALE—White Chinese Swan Geese, Cayuga Ducks, Bronze Turkeys, Black Poland (from late importations), Brahma, Dorking and Leghorn Fowls may be had by applying to
debt C. N. BEMENT, Bennington Center, Vt.

TO THE UNEMPLOYED.

I CAN GIVE STEADY EMPLOYMENT to active young men to solicit orders for the **LITTLE GIANT SEWING MACHINE**. Price, \$15.00—Hemmer, Gauge, Screw-driver and extra Needles. Will pay a liberal salary and expenses, or allow large commissions. **COUNTY RIGHTS** given to Agents. An Agent wanted in every County. For particulars, descriptive catalogue, &c., address, with stamp, **T. S. PAGE,** dec3t Gen'l Agent for U. S., Toledo, Ohio.

"THE HUMAN FACE DIVINE."—Eyes, Ears, Lips, Mouth, Head, Hair, Neck, Hands, Feet, Skin, with "SIGNS OF CHARACTER," and how to read them, given in **THE PHRENOLOGICAL JOURNAL AND LIFE ILLUSTRATED** FOR 1863, devoted to PHRENOLOGY, PHYSIOLOGY, PHYSIOGNOMY, PSYCHOLOGY, and to all that relates to the Intellectual, Social, Moral and Spiritual Nature of Man. Amply illustrated, and adapted to the comprehension of all. New volume. Subscribe now. Only \$1 a year. Samples, 10 cents. Address, dec2t **FOWLER & WELLS, 305 Broadway, N. Y.**

TO SHEEP BREEDERS.

FOR SALE—A number of **SOUTH DOWN RAMS** and **EWES**. Also, **SHROPSHIRE DOWN RAMS** and **EWES**, very superior.

They can be seen at the **Lorillard Sheep Farm** at **Fordham**, **Westchester county, N. Y.**, twelve miles from **New York City**, on the **New York and Harlem Railroad**. Inquire at **16 and 18 Chambers street, New York.** dec6t

ILLUSTRATED CATALOGUE

OF Rare and Beautiful Flower Seeds, Roots, Cuttings, &c., by mail. Persons in writing will please name some of their friends, to whom Catalogues will be sent gratis. Address, dec6t **H. B. LUM, Sandusky, Ohio.**

TOWN AGENTS WANTED TO CIRCULATE A NEW series of the *Rural American*, to be published at **Utica, N. Y.**, semi-monthly, at sixty cents a year. Regular issue from **January 1st, 1863**. A splendid paper—purely Agricultural and Horticultural—adapted to every State in the Union. Commissions very large, and a **Fifty-Cent Concord Grape Vine** free to every subscriber, which is the best early grape in existence! My travelling agents sweep towns of nearly every farmer in them—no difference on account of the war. Full details given in a specimen paper, soon to be ready, which is free to all. Address **T. B. MINER,** Clinton, Oneida county, N. Y.

P. S.—The price is **sixty cents** in clubs, not **fifty cents**, as stated in the *October Farmer*.

THE CHILSON FURNACE.

THIS celebrated Furnace, which has been so extensively used in public and private buildings, and which has stood the test of experience after various attempted imitations, is still for sale in **Rochester**. The different sizes are fitted for all classes of buildings, from the cottage to the church. They can be purchased at lower rates than ever before, and any one desiring to manufacture these Furnaces can, on short notice, be furnished with a full set of iron patterns for all the different sizes.

Further information can be obtained from the Editor of this paper. sep—1f

FARMERS AND OTHERS that wish to obtain quickly, in cash, the highest market prices for their farm produce, must send all their butter, cheese, lard, eggs, poultry, hams, game, vegetables, green and dried fruits, flour, grain, seeds, &c., &c., to

JOSIAH CARPENTER,
Produce Commission Merchant,
82 JAY STREET, NEW YORK.

He returns the cash in ten days after receipt of goods, makes advances on consignment, or buys for cash; and sends a weekly "Price Current" to all shippers. oc2t

FOR SEWING MACHINES.

JONAS BROOK & BROTHERS'.
PRIZE MEDAL SPOOL COTTON.

250 or 500 yard spools, White, Black, and Colored.

FOR MACHINES, use **BROOK'S PATENT GLACE** for upper thread, and **BROOK'S SIX CORD RED TICKET** for under thread. Sold by all first class dealers in city and country; also in cases of 101 dozen each, as ordered numbers, by **WM. HENRY SMITH**, Sole Agent, 86 Vesey street, New York. Ja—1y

WOOD CUTS FOR SALE.

WE will sell Stereotypes of the Wood Cuts used in the *Genesee Farmer* and *Rural Annual and Horticultural Directory*. A book containing impressions of over Seven Hundred of these cuts will be sent to those wishing to purchase on the receipt of 50 cents. The book contains an index, showing where descriptions of the cuts will be found.

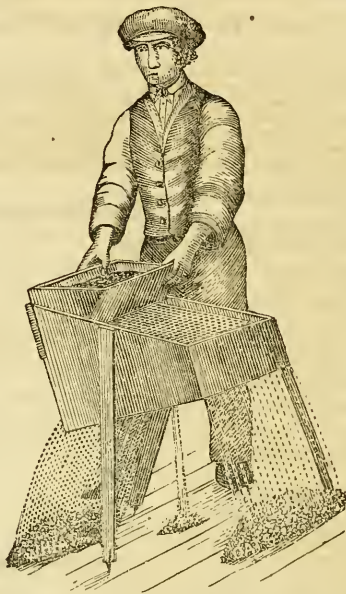
Address **JOSEPH HARRIS, ROCHESTER, N. Y.**

TO GROWERS OF SPRING WHEAT.

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ROCHESTER, N. Y., SOLE MANUFACTURERS OF

FOR
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BEST
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INVENTED



SEPARATING OATS, BARLEY, &c., FROM WHEAT

"BOOTH'S COMPOUND SHAKER."

FOR SEPARATING OATS, BARLEY, AND OTHER FOREIGN substances from Wheat, it is the **BEST, SIMPLEST, CHEAPEST** and only Machine ever invented, that thoroughly accomplishes the desired end. Farmers can always get from five to ten cents per bushel more for their Wheat if properly cleaned. It cleans from 150 to 200 bushels per day, and a boy can operate it, and its exceeding

LOW PRICE

Brings it within the reach of every Farmer. On receipt of **EIGHT DOLLARS**, a Machine (with printed instructions for operating,) will be shipped as directed. Those wishing to engage in the sale of the Machine and purchasing by the dozen, will have a fair discount made to them. All orders to be addressed to **CHAPPELL & SPRAGUE, Rochester, N. Y.,** sep—6t Sole Manufacturers.

CARRIAGE HORSES WANTED.

DAPPLE GRAY, LONG TAILS, HEADS WELL UP; LONG range in action; weight, eleven to twelve hundred; age, seven to eight years, 16 hands high. Any person having a sound pair of horses for sale, answering the description, will please address notf **GEO. A. PRINCE, Buffalo, N. Y.**

CHOICE NATIVE AND FOREIGN GRAPE

VINES—**LENK & CO. OFFER FOR SALE A LARGE** stock of Native and Foreign Grape Vines, including all the rarest and most valuable varieties. Send for a Price List. Address **LENK & CO.,** nov1f Humboldt Nurseries, Toledo, Ohio.

SHROPSHIRE AND SOUTH DOWN DRAFT SHEEP FOR SALE.

Shropshire Rams,
Shropshire Ewes,
South Down Rams,
South Down Ewes.

Inquire at **16 and 18 Chambers street, New York, at** **JACOB LORILLARD.** oc—5t

AGENTS WANTED AT ONCE

FOR A COMPLETE HISTORY OF THE

REBELLION—To be issued by **The Auburn Publishing Co.** Prospectus and Descriptive Circulars sent free to those who write to **E. G. STORKE, Auburn, N. Y.**

THE RURAL ANNUAL—For 1856, '57, '58, '59, '60, '61 and '62 will be sent, prepaid to any address for \$1.40. **JOSEPH HARRIS, Rochester, N. Y.**

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IN ALL THE DENOMINATIONS.

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IT SUPPORTS THE GOVERNMENT

With **VIGOR, FIDELITY and ZEAL**, in its efforts to CRUSH THE REBELLION,

And restore the Union and preserve the Constitution. It criticizes with freedom whatever measures are not adapted to the accomplishment of these ends: but its steady purpose, from the beginning of the war, has been, and will be, to uphold the hands and strengthen the heart of the Government, while it puts forth its energies to protect us against the most unholy rebellion that ever disturbed the peace of any country.

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In the variety of its Departments,
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In the extent of its Correspondence,
In the number of minds enlisted in its editorial and other columns,

In the amount of money expended in procuring materials to enrich and adorn its pages,

In the healthful, religious, conservative, genial tone that pervades the paper.

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